dissolved test substance concentration shall be measured at 0, 48, and 96 hours.

(2) *Test procedures.* The test shall be performed under flow-through conditions.

(ii) *Reporting requirements.* The *Gammarid* acute toxicity test shall be completed and the final report submitted to EPA within 9 months of the effective date of the final rule.

(5) *Daphnid chronic toxicity*—(i) *Required testing.* (A) Daphnid chronic toxicity testing shall be conducted with TBP using *Daphnia magna* or *D. pulex* in accordance with § 797.1330 of this chapter, if the algal EC50, the rainbow trout LC50, the daphnid EC50, or the gammarid LC50 determined in accordance with paragraphs (d)(1), (2), (3) and (4) of this section satisfy the following criteria: Any such value is < 1 mg/L; or any fish or aquatic invertebrate EC50 or LC50 is < 100 mg/L and either the rainbow trout or gammarid 24-hour to 96-hour LC50 ratio > 2, or the daphnid 24-hour to 48-hour EC50 or LC50 ratio is > 2.

(B) For the purpose of this section, the following provisions also apply:

(1) *Chemical measurement.* The total and dissolved (e.g., filtered) concentrations of the test substance shall be measured in each test chamber and the delivery chamber before the test. If the dissolved test substance concentration is greater than 80 percent of total test substance concentration, then only total or dissolved test substance concentration shall be measured in each test chamber at 0, 7, 14, and 21 days. If the dissolved test substance concentration is less than or equal to 80 percent of total test substance concentration, then total and dissovled test substance concentration shall be measured at 0, 7, 14, and 21 days.

(2) *Test procedures.* The test shall be performed under flow-through conditions.

(ii) *Reporting requirements.* (A) The daphnid chronic toxicity test, if required, shall be completed and the final report submitted to EPA within 21 months of the effective date of the final rule.

(B) An interim progress report shall be submitted to EPA 6 months after the initiation of the test.

(6) *Fish early-life stage toxicity*—(i) *Required testing.* A fish early-life stage toxicity test shall be conducted with TBP in accordance with § 797.1600 of this chapter, using the fish with the lower LC50 value (either the rainbow trout (*Salmo gairdneri*) or the fathead minnow (*Pimephales promelas*)), if the algal EC50, the rainbow trout LC50, the gammarid LC50 or the daphnid EC50 determined in accordance with paragraphs (d)(1), (2), (3), and (4) of this section satisfy the following criteria: Any such value is < 1 mg/L; or any fish or aquatic invertebrate EC50 or LC50 is < 100 mg/L and either the rainbow trout or gammarid 24 hour to 96 hour LC50 ratio > 2, or the daphnid 24-hour to 48-hour EC50 ratio is > 2.

(ii) *Reporting requirements.* (A) The fish early-life stage flow-through toxicity test shall be completed and the final report submitted to EPA within 21 months of the effective date of the final rule.

(B) An interim progress report shall be submitted to EPA 6 months after the initiation of the test.

(7) *Benthic sediment invertebrate bioassay*—(i) *Required testing.* (A) A benthic sediment invertebrate bioassay shall be conducted on TBP with the midge (*Chironomus tentans*) if chronic toxicity testing is required pursuant to paragraph (d)(5) of this section and if the log Koc calculated according to paragraph (e)(2)(B)(1) of this section is greater than or equal to 3.5 but less than or equal to 6.5. The total aqueous sediment concentrations and interstitial water concentrations of the test substance shall be measured in each test chamber at 0, 4, 7, 10, and 14 days. The aqueous concentrations of the test substance in the delivery chamber shall be measured at 0, 4, 7, 10, and 14 days. TBP-spiked clean freshwater sediments containing low, medium, and high organic carbon content shall be used.

(B) The benthic sediment invertebrate bioassay shall be conducted according to the test procedure specified in the American Society for Testing and Materials, Special Technical Publication 854 (ASTM STP 854) entitled, "Aquatic Safety Assessment of Chemicals Sorbed to Sediments," by W.J. Adams, R.A. Kimerle, and R.G. Mosher, published in *Aquatic Toxicity and Hazard Assessment: Seventh Symposium,* ASTM STP 854, pp. 429–453, R.D. Caldwell, R. Purdy, and R.C. Bahner, Eds., 1985 which is incorporated by reference. This published procedure is available for public inspection at the Office of Federal Register, Room 8301, 1100 L St., NW., Washington, DC 20408, and copies may be obtained from the EPA TSCA Public Docket Office in Rm. G–004, NE Mall, 401 M St., SW., Washington, DC 20460. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 522(a) and 1 CFR part 51. The method is incorporated as it exists on the effective date of this rule and a notice of any change to the method will be published in the **Federal Register.**

(ii) *Reporting requirements.* (A) The benthic sediment invertebrate bioassay, if required, shall be completed and the final report submitted to EPA within 21 months of the effective date of the final rule.

(B) An interim progress report shall be submitted to EPA for the benthic sediment invertebrate bioassy 6 months after the initiation of the test.

(e) *Chemical fate testing*—(1) *Vapor pressure*—(i) *Required testing.* Vapor pressure testing shall be conducted with TBP in accordance with § 796.1950 of this chapter.

(ii) *Reporting requirements.* The vapor pressure test required in paragraph (d)(1) of this section shall be completed and the final report submitted to EPA within 6 months of the effective date of the final rule.

(2) *Sediment and soil adsorption isotherm*—(i) *Required testing.* Sediment and soil absorption isotherm testing shall be conducted with TBP in accordance with § 796.2750 of this chapter and EPA will provide two soil and two sediment samples.

(ii) *Reporting requirements.* (A) The sediment and soil absorption isotherm test required under paragraph (d)(2) of this section shall be completed and the final report submitted to EPA within 6 months of the effective date of the final rule.

(B) For the purpose of this section, the following provisions also apply:

(1) A Koc value shall be calculated for each test sediment using the equation Koc=K/ (percent of organic carbon in test sediment).

(2) [*Reserved*]

(3) *Hydrolysis as a function of pH at 25°C*—(i) *Required testing.* Hydrolysis testing shall be completed with TBP in accordance with § 796.3500 of this chapter.

(ii) *Reporting requirements.* The hydrolysis test required under paragraph (e)(3) of this section shall be completed and the final report submitted to EPA within 6 months of the effective date of the final rule.

(f) *Effective date.* (1) The effective date of the final rule is September 27, 1989.

(2) The guidelines and other test methods cited in this section are referenced here as they exist on September 27, 1989.

(Information collection requirements have been approved by the Office of Management and Budget under Control Number 2070–0033.)

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Monday
August 14, 1989

Part V

Environmental Protection Agency

40 CFR Parts 116, 117, and 302
Reportable Quantity Adjustments; Delisting of Ammonium Thiosulfate; Final Rules

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 302

[SW H-FRL 3281-8]

Reportable Quantity Adjustments

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Sections 103(a) and (b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, require that persons in charge of vessels or facilities from which hazardous substances have been released in quantities that are equal to or greater than their reportable quantities (RQs) immediately notify the National Response Center of the release. Section 102(b) sets an RQ of one pound for hazardous substances, except those substances for which different RQs have been established pursuant to section 311(b)(4) of the Clean Water Act (CWA). In addition to these reporting requirements section 304 of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires that releases of hazardous substances in quantities equal to or greater than their RQs (or one pound if a reporting trigger is not established by regulation) be reported to State and local authorities.

Section 102(a) of CERCLA authorizes the U.S. Environmental Protection Agency (EPA or "the Agency") to adjust RQs for hazardous substances and to designate as hazardous substances those substances that, when released into the environment, may present substantial danger to the public health or welfare or the environment. Currently there are 725 CERCLA hazardous substances.[1] In this rulemaking, EPA is promulgating the RQ adjustments for six of the 273 hazardous substances whose RQs were proposed to be adjusted in a March 16, 1987 Notice of Proposed Rulemaking (NPRM). These six substances are: 1,4-dioxane, 2-ethoxyethanol, ethylene oxide, 2-nitropropane, perchloroethylene, and saccharin. By making the adjustments contained in this rulemaking, the Agency will be able to focus its resources on those releases which are most likely to pose potential threats to public health or welfare or the environment. In addition, by making these adjustments, EPA will relieve the regulated community of the burden of reporting releases which are unlikely to pose such threats.

EFFECTIVE DATE: August 14, 1989.

ADDRESSES: The toll-free telephone number of the National Response Center is 1–800/424–8802; in the Washington, DC metropolitan area the number is 1–202/267–2675.

Docket: Copies of materials relevant to this rulemaking are contained in Room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460 (Docket Number 102 RQ–273C). The docket is available for inspection between the hours of 9:00 a.m. and 4:00 p.m. Monday through Friday, excluding Federal holidays. To review docket materials, you may make an appointment by calling 1–202/382–3046. The public may copy a maximum of 50 pages from any regulatory docket at no cost. Additional copies cost $.20 per page.

FOR FURTHER INFORMATION CONTACT: Ivette O. Vega, Response Standards and Criteria Branch, Emergency Response Division, U.S. Environmental Protection Agency (OS–210), 401 M Street, SW, Washington, DC 20460, or the RCRA/Superfund Hotline at 1–800/424–9346; in the Washington, DC metropolitan area at 1–202/382–3000.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

I. Introduction

A. Statutory Authority

Section 102(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (Pub. L. 96–510), 42 U.S.C. 9601 *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Pub. L. 99–499), establishes reportable quantities (RQs) of one pound for releases of hazardous substances, except for hazardous substances whose RQs were established at a different level pursuant to section 311 of the CWA. Section 102(a) of CERCLA authorizes EPA to adjust all of these RQs by regulation.

Sections 103(a) and (b) of CERCLA require that the person in charge of a vessel or facility notify the National Response Center immediately when there is a release of a hazardous substance in an amount equal to or greater than the RQ for that substance. This notification requirement serves as a trigger for informing the government of a release so that Federal personnel can evaluate the need for a Federal removal or remedial action and undertake any necessary action in a timely fashion. Under section 104 of CERCLA, the Federal government may respond whenever there is a release or substantial threat of a release of a hazardous substance into the environment. Responses are to be taken, to the extent practicable, in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), which was originally developed under the CWA and which has been revised to reflect the responsibilities and authority created by CERCLA.

[1] EPA proposed RQ adjustments for the hazardous substances whose RQs are promulgated in this final rule on March 16, 1987. As of that date, there were 717 CERCLA hazardous substances. Changes to the list of CERCLA hazardous substances since March 16, 1987 are described below. Four hazardous waste streams (K123, K124, K125, and K126) were added in a final rule (51 FR 37725) that became effective on April 24, 1987, bringing the total number of CERCLA hazardous substances to 721. EPA removed iron dextran and strontium sulfide from the list in two final rules (53 FR 43878 and 53 FR 43881) effective October 31, 1988, thus reducing the number of CERCLA hazardous substances to 719. Six hazardous substances (waste streams K064, K065, K066, K088, K090, and K091) were added to the CERCLA list in a final rule (53 FR 35412) that became effective on March 13, 1989, increasing the number of CERCLA hazardous substances to 725, which is the current total. Lastly, based on a final rule published elsewhere in today's **Federal Register**, ammonium thiosulfate will be removed from the CERCLA list 60 days from today's date, thus reducing the number of CERCLA hazardous substances to 724.

If a release meets certain statutory criteria set out in CERCLA section 103(f)(2), the release may be subject to more limited reporting requirements. Specifically, a release is subject to these limited requirements if the release: (1) Is continuous and stable in quantity and rate, and is from a facility for which notification has been given under CERCLA section 103(c), or (2) is a release for which notification has been given under CERCLA sections 103(a) and (b) for a period sufficient to establish continuity, quantity, and regularity of the release. Notification must still be given annually and when there is a statistically significant increase in the release. In addition, CERCLA section 103 provides a reporting exemption for federally permitted releases. The definition of federally permitted release in CERCLA section 101(10) specifically identifies releases permitted under certain other Federal or State programs. Several commenters claimed that their particular releases are subject to continuous and/or federally permitted release treatment. EPA published proposed regulations to clarify the reduced reporting requirement for continuous releases on April 19, 1988 (53 FR 12868). EPA also clarified the reporting exemption for federally permitted releases in proposed regulations published on July 19, 1988 (53 FR 27268). Comments on continuous and federally permitted release issues submitted in response to the March 16, 1987 NPRM will be addressed in the upcoming final rules for continuous and federally permitted releases.

In addition to the reporting requirements established by CERCLA, section 304 of SARA Title III requires the owners and operators of certain facilities to report releases of CERCLA hazardous substances to State and local authorities. SARA Title III section 304 notification must be given immediately after the release of an RQ or more (one pound or more if a reporting trigger is not established by regulation) to the community emergency coordinator for each local emergency planning committee for any area likely to be affected by the release, and to the State emergency response commission of any State likely to be affected by the release. These notification requirements apply only to releases that have potential for off-site exposure and that are from facilities at which a "hazardous chemical" (defined by regulations under the Occupational Safety and Health Act of 1970 (29 CFR 1910.1200(c)) and section 311 of SARA Title III) is produced, used, or stored.

Section 109 of CERCLA and section 325 of SARA Title III authorize EPA to assess civil penalties for failure to report releases of hazardous substances that equal or exceed their RQs. Section 103 of CERCLA, as amended, authorizes EPA to seek criminal penalties for submitting false or misleading information in a notification made pursuant to CERCLA section 103, and increases the maximum penalties and years of imprisonment for violation of the CERCLA section 103 reporting requirement.

B. Background of This Rulemaking

On May 25, 1983, EPA proposed a rule (48 FR 23552) to clarify procedures for reporting releases of CERCLA hazardous substances and to adjust RQs for 387 of the then 696 hazardous substances.[2] In the May 25, 1983 Notice of Proposed Rulemaking (NPRM) EPA also compiled for the first time the list of "hazardous substances" defined under section 101(14) of CERCLA. In the preamble to that NPRM, EPA discussed in detail the CERCLA notification provisions, the methodology and criteria used to adjust the RQ levels, and the RQ adjustments proposed under section 102 of CERCLA and under section 311 of the CWA. EPA promulgated final RQ adjustments for 340 hazardous substances in an April 4, 1985 final rule (50 FR 13456) and for an additional 102 substances in a September 29, 1986 final rule (51 FR 34534). In an NPRM published on March 16, 1987 (52 FR 8140), EPA proposed RQ adjustments for 273 hazardous substances. The March 16, 1987 **Federal Register** also contained an NPRM in which EPA proposed RQ adjustments for radionuclides.[3] In addition, in an NPRM published on March 2, 1988 (53 FR 6762), EPA reproposed RQ adjustments for lead metal and four lead compounds, and proposed to delist ammonium thiosulfate as a CERCLA hazardous substance.

This rulemaking finalizes the RQ adjustments for six of the 273 hazardous substances whose RQs were proposed for adjustment in the March 16, 1987 NPRM. This rule contains EPA's responses to all issues raised by the commenters relating to the RQ adjustment methodology for potential carcinogenicity, except those methodology issues not relevant to the six RQ adjustments promulgated in this final rule (for further discussion, see Section II.B.2 of this preamble). This rule also contains responses to public comments received on the specific RQ adjustments for the hazardous substances in this rulemaking. Comments were received on the proposed RQ adjustments for only three hazardous substances (1,4-dioxane, perchloroethylene, and saccharin) of the six hazardous substances for which RQ adjustments are promulgated in this rule.

RQ adjustments for 258 hazardous substances, including 254 of the 273 hazardous substances whose RQs were proposed for adjustment in the March 16, 1987 NPRM, are contained in a final rule published elsewhere in today's **Federal Register**. As explained in Section II.C.2.i of the preamble to the other final RQ adjustment rule published in today's **Federal Register**, EPA will address the RQs for the remaining 13 substances of the 273 substances that were the subject of the March 16, 1987 NPRM in a future action.

Section 306(a) of CERCLA, as amended by SARA section 202, requires the U.S. Department of Transportation (DOT) to list and regulate CERCLA hazardous substances as hazardous materials under the Hazardous Materials Transportation Act. Pursuant to this requirement, DOT promulgated on November 21, 1986, a final rule (51 FR 42174) providing that, when a hazardous substance is shipped in a quantity equal to or greater than its RQ, it must be identified as such in shipping papers and by package markings. This rule became effective on July 1, 1987 (51 FR 46672). The rule requires shippers of hazardous substances in quantities at or above their RQs to place the notation "RQ" and the name of the substance on shipping papers and package markings.

RQs for many of the hazardous substances proposed for adjustment in the March 16, 1987 NPRM (including the six substances whose adjusted RQs are being promulgated today) were proposed to be adjusted upward from their statutory RQs. The estimated production volume for the six hazardous substances whose adjusted RQs are being promulgated today is 4.6 billion

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[2] Since the May 25, 1983 NPRM, 31 substances have been added and two substances have been deleted from the CERCLA list, bringing the total number of CERCLA hazardous substances to 725. The 31 substances added to the list are: waste stream F024 (49 FR 5308); coke oven emissions (49 FR 36560); waste streams F020, F021, F022, F023, F026, F027, and F028 (50 FR 1978); waste streams K111, K112, K113, K114, K115, and K116, o-toluidine and p-toluidine (50 FR 42936); waste streams K117, K118, and K136 (51 FR 5327); 2-ethoxyethanol (51 FR 6537); waste streams K123, K124, K125, and K126 (51 FR 37725); and waste streams K064, K065, K066, K088, K090, and K091 (53 FR 35412). The two substances deleted from the list are: iron dextran (53 FR 43878) and strontium sulfide (53 FR 43881).

[3] RQ adjustments for radionuclides were promulgated in a final rule published on May 24, 1989 (54 FR 22524).

pounds annually. Because this amount represents a relatively large proportion of the total production volume of all 273 hazardous substances proposed for RQ adjustment in the March 16, 1987 NPRM, many shippers would be subject to a regulatory burden that is not justified by the hazards that these substances pose to human health and the environment. Once final RQ adjustments are promulgated for these six hazardous substances, shippers of less than the adjusted RQ of a substance will not be subject to DOT regulations relating to shipping papers and package markings. Accordingly, EPA is expediting the promulgation of a final rule adjusting RQs for these substances by making this rule effective immediately upon promulgation. Because this rule "grants or recognizes an exemption or relieves a restriction" under section 553(d)(1) of the Administrative Procedure Act (APA), the APA requirement that final rules become effective no less than 30 days after publication does not apply.

In finalizing these RQ adjustments, this rule amends Table 302.4 of 40 CFR Part 302. Section II of this preamble discusses the RQ adjustments promulgated in this rulemaking and the methodology used in making these adjustments. Section II also includes EPA's responses to public comments on the March 16, 1987 NPRM that are relevant to the six RQ adjustments made in this rule and to the RQ adjustment methodology on which these six adjustments are based. Section III provides a summary of the analyses supporting this rulemaking.

II. Reportable Quantity Adjustments

A. Introduction

In this rulemaking, the Agency adjusts RQs based upon specific scientific and technical criteria that relate to the possibility of harm from the release of a hazardous substance at certain levels. The quantity released is but one factor considered by the government when assessing the need to respond to such a release. Other factors, assessed on a case-by-case basis, include but are not limited to: (1) The location of the release; (2) its proximity to drinking water supplies or other valuable resources; and (3) the likelihood of exposure or injury to nearby populations. The RQ adjustments made today will enable the Agency to focus its resources on those releases that are most likely to pose potential threats to public health or welfare or the environment. These adjustments will also relieve the regulated community and emergency response personnel from the burden of making and responding to reports of releases that are unlikely to pose such threats.

In this final rule, the Agency is adjusting RQs for 1,4-dioxane, 2-ethoxyethanol, ethylene oxide, 2-nitropropane, perchloroethylene, and saccharin. With the exception of 2-ethoxyethanol (which was not identified as a potential carcinogen under the identification methodology discussed in Section II.B. below), all of these hazardous substances have been evaluated for potential carcinogenicity as well as other primary criteria. The final RQ adjustments promulgated today are based on the results of this evaluation. In the case of 2-ethoxyethanol, its final RQ adjustment is based on the primary criterion of chronic toxicity (see the discussion below).

B. Reportable Quantity Adjustment Methodology

1. Summary of the Methodology

The Agency has wide discretion in adjusting the statutory RQs for hazardous substances under CERCLA. Administrative feasibility and practicality are important considerations. The Agency's methodology for adjusting RQs begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each hazardous substance. The intrinsic properties examined—called "primary criteria"—are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, chronic toxicity,[4] and potential carcinogenicity.

The Agency ranks hazardous substances for each intrinsic property (except potential carcinogenicity) on a five-tier scale, associating a specific range of values on each scale with a particular RQ value.[5] This five-tier scale uses the five RQ levels of one, 10, 100, 1000, and 5000 pounds, originally established pursuant to CWA section 311 (see 40 CFR 117 and 44 FR 50776). For hazardous substances evaluated for potential carcinogenicity, each substance is assigned a hazard ranking of "high," "medium," or "low." These hazard rankings correspond to RQ levels of one, 10, and 100 pounds, respectively (see below). Each hazardous substance evaluated under the various primary criteria is assigned several tentative RQ values based on its particular properties as data allow. The lowest of the tentative RQs becomes the "primary criteria RQ" for that substance. After the primary criteria RQs are assigned, substances are further evaluated for their susceptibility to certain degradative processes, which are used as secondary adjustment criteria. These natural degradative processes are biodegradation, hydrolysis, and photolysis (BHP). For further discussion of BHP, see Section II.B.2.a of the preamble to the final rule in which EPA promulgates RQ adjustments for 258 hazardous substances, published elsewhere in today's Federal Register.

If a hazardous substance, when released into the environment, degrades relatively rapidly to a less hazardous form by one or more of the BHP processes,[6] its RQ (as determined by the primary RQ adjustment criteria) is raised one level. This adjustment is made because the relative potential for harm to public health or welfare or the environment posed by the release of such a substance is reduced by these degradative processes. Conversely, if a hazardous substance degrades to a more hazardous product after its release, the original substance is assigned an RQ equal to the RQ for the more hazardous substance, which may be one or more levels lower than the RQ for the original substance. The downward adjustment is appropriate because the hazard posed by the release of the original substance is increased as a result of BHP.

To identify those CERCLA hazardous substances that may be potential carcinogens, EPA reviewed four sources of human epidemiologic and/or animal bioassay data on hazardous substances that suggest possible carcinogenic effect. These sources are: (1) The Annual Reports on Carcinogens of the National Toxicology Program (NTP), U.S. Department of Health and Human Services; (2) the Monographs of the International Agency for Research on Cancer (IARC); (3) final Agency determinations published in the **Federal Register** identifying substances as potential carcinogens; and (4) ongoing determinations by the Agency's Office of Health and Environmental

[4] EPA is aware that some chronic effects result from acute (short-term) exposures and considers such data in the chronic toxicity evaluations. The Agency is further evaluating data on chronic effects resulting from acute exposures to ensure that such data receive adequate consideration in the RQ adjustment process.

[5] All of the RQs promulgated in this rulemaking are subject to the Agency's review of the most recent systemic (i.e., relating to a particular organ system) toxicity data. These RQs will be revised, if necessary, in a future rulemaking based on the results of this review.

[6] The specific thresholds for the application of BHP to hazardous substances are discussed in the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 1, March 1985, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

Assessment that substances may be potential carcinogens, based on either published or unpublished data.[7] The Agency compared the list of substances derived from these four sources with the list of the CERCLA hazardous substances to determine which hazardous substances should be evaluated for potential carcinogenicity.

Not all of the substances so identified are subsequently ranked for potential carcinogenicity. Only those substances that fall within the Agency's weight-of-evidence Groups A, B, or C discussed below (i.e., known, probable, or possible human carcinogens) are ranked and assigned tentative RQs based on potential carcinogenicity.

The evaluation of hazardous substances for potential carcinogenicity initially involves a qualitative assessment of the available scientific literature on the substance. The data are reviewed to determine the degree of certainty or weight of evidence that a particular hazardous substance is a human carcinogen. The substance is then classified in an overall weight-of-evidence category (A, B, C, D, or E).

A hazardous substance is placed in Group A (known human carcinogen) only if "sufficient" evidence from human epidemiologic studies supports a causal connection between exposure to the hazardous substance and cancer. Group B (probable human carcinogen) is divided into two subgroups, B1 and B2. Group B1 includes hazardous substances for which the weight of evidence of human carcinogenicity based on epidemiologic studies is "limited." Group B2 includes hazardous substances for which there is "no data," "inadequate evidence," or "no evidence" of human carcinogenicity from epidemiologic studies, but for which the weight of evidence of carcinogenicity based on animal studies is "sufficient." Group C (possible human carcinogen) includes hazardous substances with "limited" evidence of carcinogenicity in animals and "inadequate evidence," "no data," or "no evidence" from human epidemiologic studies. As mentioned in the March 16, 1987 NPRM (52 FR 8144), Group D substances (not classifiable for human carcinogenicity) and Group E substances (evidence of noncarcinogenicity for humans) are not considered potential carcinogens for purposes of this rulemaking.

The evaluation of hazardous substances for potential carcinogenicity also involves a quantitative assessment of the available data to calculate the relative strength of a hazardous substance to elicit a carcinogenic response (i.e., the "potency factor").[8] This quantitative assessment allows the Agency to rank potential carcinogens on a numerical scale by identifying the most potent substances as the most hazardous. Group 1 includes those hazardous substances with the highest potencies. Other potential carcinogens with medium and low potencies are placed in Groups 2 and 3, respectively.

The final step in the hazard ranking procedure is to combine the qualitative weight-of-evidence groups and the quantitative potency factor groups using a matrix to yield a relative hazard ranking for each substance. Thus, hazard rankings are based on two factors—weight of evidence and potency—that the Agency believes are important in describing carcinogenic hazards. The following is the matrix used to assign hazard rankings to potential carcinogens in today's two final rules:

HAZARD RANKING

Weight-of-evidence group	Potency group		
	1 (highest)	2	3 (lowest)
A	High	High	Medium.
B	High	Medium	Low.
C	Medium	Low	Low.
D	No hazard ranking is made. The other primary criteria are used to assign the RQ.		
E	No hazard ranking is made. The other primary criteria are used to assign the RQ.		

The matrix is used to group the potential carcinogens into "high," "medium," and "low" hazard categories, and is arranged so that as the weight of evidence and the potency decrease, the hazard ranking also decreases. RQ levels are then assigned to the hazard rankings as follows: high—one-pound RQ; medium—10-pound RQ; and low—100-pound RQ.

For a more detailed discussion of the RQ adjustment methodology based on the primary criterion of potential carcinogenicity, see the preamble to the March 16, 1987 NPRM (52 FR 8140) and the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

EPA stated in the March 16, 1987 NPRM (see 52 FR 8146) that it was reviewing its position on consideration of benign tumors and pooling of tumor sites and types, as set forth in the Agency's Guidelines for Carcinogen Risk Assessment.[9] The effect of this review on RQs for potential carcinogens is discussed in the preamble to the final rule published elsewhere in today's **Federal Register** in which EPA promulgates RQ adjustments for 258 hazardous substances.

2. Responses to Comments Received on the Methodology

The Agency received 35 comment letters on the March 16, 1987 NPRM (52 FR 8140). Ten of these letters contain comments that address the RQ adjustment methodology proposed in that NPRM for evaluating CERCLA hazardous substances for potential carcinogenicity. The comments on the RQ adjustment methodology are grouped into five categories: (1) Carcinogen hazard ranking methodology and the 100-pound maximum RQ; (2) the use of NTP and IARC publications in the Agency's identification methodology; (3) the Agency's use of its Guidelines for Carcinogen Risk Assessment to derive RQs; (4) the application of the secondary RQ adjustment criteria of BHP to potential carcinogens; and (5) the application of the CWA mixture rule to hazardous waste streams. Because none of the six hazardous substances that are the subject of this final rule meets the criteria for applying BHP and none are hazardous waste streams, the following discussion focuses on the first three comment categories. Comments that fall within the last two categories are addressed in a final rule published elsewhere in today's **Federal Register** that promulgates RQ adjustments for 254 of the 273 hazardous substances proposed for adjustment in the March 16, 1987 NPRM.

[7] In addition to this application of unpublished data to identify potential carcinogens, EPA intends to use such data for the purpose of ranking potential carcinogens under the CERCLA RQ methodology. Currently, the Agency is evaluating unpublished data received on the weight of evidence and potency of certain potential carcinogens and will present the results of this evaluation, along with any RQ adjustments, in a future rulemaking.

[8] For an explanation of how potency factors are calculated, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[9] As discussed in Section II.B.2.c below, the Guidelines provide that benign tumors should be considered along with malignant tumors unless there is evidence that the benign tumors do not have the potential to progress to malignancies of the same histogenic origin. The Agency pools tumor sites and types when each site or type, viewed separately, shows a tumor incidence that is elevated significantly above the incidence in control animals (51 FR 33992, September 24, 1986).

a. Carcinogen Hazard Ranking Methodology and the 100-Pound Maximum RQ. In the March 16, 1987 NPRM (52 FR 8140), EPA proposed RQ adjustments for potential carcinogens of one, 10, and 100 pounds. Several commenters objected to the proposed 100-pound maximum RQ for potential carcinogens. The commenters recommended that hazardous substances with no greater than "inadequate" evidence of cancer in humans and "limited" evidence of cancer in animals receive 1000- or 5000-pound RQs.

EPA disagrees with the commenters for the reasons discussed below. First, as stated in the March 16, 1987 NPRM, although cancer is a unique health effect with its own special properties, it is also a type of chronic effect. EPA, therefore, has determined that reference to the Agency's chronic toxicity methodology is appropriate in assigning RQs to potential carcinogens. Under the chronic toxicity methodology, each substance is assigned two rating values, one based on the dose that causes a particular effect, and one based on the severity of the effect. The dose ratings range from one to 10, with 10 representing the most toxic substances. The effect ratings also range from one to 10, with 10 representing the most severe effect. The product of the dose and effect ratings for each substance yields a composite ranking score between one and 100. Because cancer is a life-threatening effect, the effect rating for cancer would be 10 if cancer were ranked on the chronic toxicity scale. Therefore, the composite score for any potential carcinogen would be at least 10. A composite score of 10 corresponds to an RQ of 1000 pounds. Thus, a 5000-pound RQ for a potential carcinogen would be inappropriate based on the Agency's chronic toxicity scale (see 52 FR 8145).

Two commenters stated that this analogy between chronic toxicity and potential carcinogenicity is not valid because chronic toxicants have *known* human health effects, whereas the human health effects of potential carcinogens are often determined by speculation based on animal data. EPA believes that these commenters have exaggerated the distinction between the data for chronic toxicity and the data for potential carcinogenicity. The human health effects of both chronic toxicants and potential carcinogens are based to a large degree on observation of health effects in experimental animals. Therefore, the Agency believes that reference to its chronic toxicity methodology in determining the RQ levels for potential carcinogens is appropriate.

Second, EPA believes that the special properties of potential carcinogens are important in assigning RQ levels to these substances. These special properties are: (1) The lack of a demonstrated threshold level below which a potential carcinogen presents no risk of cancer; (2) the cumulative nature of cancer risks; and (3) the fact that cancer has a latent period that does not allow direct observation of carcinogenic risks from substances newly released into the environment (52 FR 8145, March 16, 1987).

These three special properties of potential carcinogens suggest a conservative approach by the Agency in assigning RQ levels to these substances. Where a potential carcinogen does not have a threshold level of exposure below which it presents no risk of cancer, each individual exposure, regardless of amount, may cause irreversible health effects. The lack of demonstrated threshold levels for potential carcinogens also means that an individual may develop cancer (an irreversible health effect) at doses that cause no other physical effects. The cumulative nature of cancer risks means that each additional exposure, at any dose, further increases the likelihood of a carcinogenic response. Additionally, for substances that have a latent period that does not allow direct observation of carcinogenic risks, the Agency has greater reason to be conservative in assessing the health risks accompanying exposure at any dose. In particular, the latent period of cancer, when taken together with the fact that cancer may develop from doses too small to cause other physical effects, means that individuals may not be aware that they need to leave release sites at which they may be exposed to dangerous levels of potential carcinogens. The Agency, therefore, has determined that the special properties of potential carcinogens justify assigning lower RQs (i.e., one, 10, and 100 pounds) to potential carcinogens than the RQs that are assigned to other hazardous substances (i.e., one, 10, 100, 1000, and 5000 pounds).

In summary, a 100-pound maximum RQ for potential carcinogens is retained because (1) reference to the Agency's chronic toxicity scale shows that a 5000-pound RQ would be inappropriate for any potential carcinogen; and (2) the Agency believes that the special properties of potential carcinogens justify a more conservative approach in setting RQ levels for these substances than for other hazardous substances.

Several commenters objected to the fact that the Agency assigns the same "low" hazard ranking (and resultant 100-pound RQ) to weight-of-evidence Group C, potency Group 3 potential carcinogens that it assigns to weight-of-evidence Group B2, potency Group 3 potential carcinogens. Thus, the commenters disagreed with the proposed 100-pound maximum RQ for potential carcinogens. The commenters recommended that hazardous substances with no greater than "inadequate" evidence of cancer in humans and "limited" evidence of cancer in animals (i.e., weight-of-evidence Group C) receive 1000- or 5000-pound RQs.

At this time, EPA has decided to retain the 100-pound maximum RQ for potential carcinogens. However, EPA plans to evaluate the RQ adjustment methodology for potential carcinogens, particularly the weight-of-evidence Group C, potency Group 3 substances.[10] The results of this evaluation will be addressed in a future Agency action. Note that this continuing investigation does not alter today's determination that these substances be assigned RQs of no more than 100 pounds.

b. Use of NTP and IARC Determinations. Several commenters suggested that the Agency not rely on NTP and IARC determinations as a basis for RQ rulemakings and recommended that EPA independently evaluate the qualitative evidence of carcinogenicity for each hazardous substance. In the March 16, 1987 NPRM (52 FR 8143), the Agency proposed a procedure for screening the list of CERCLA hazardous substances to identify hazardous substances that might require assessment for potential carcinogenicity. The NTP annual reports and IARC monographs are used only as an initial screen for substances to be evaluated for potential carcinogenicity by the Agency. The conclusions reached by IARC or NTP on specific chemicals do not determine directly whether a hazardous substance is considered a potential carcinogen for purposes of establishing RQs. Rather, EPA follows

[10] Five individual hazardous substances are in this category: 5-nitro-o-toluidine; saccharin; p-toluidine; 1,1,1,2-tetrachloroethane; and 1,1,2-trichloroethane. EPA is promulgating an RQ adjustment of 100 pounds for saccharin in this final rule. RQ adjustments of 100 pounds for the other four weight-of-evidence Group C, potency Group 3 substances are promulgated in a final rule published elsewhere in today's Federal Register. In that same final rule, EPA also promulgates RQ adjustments for seven waste streams (F002, K073, K095, K096, K112, K113, and K114) that contain one or more of the five weight-of-evidence Group C, potency Group 3 substances.

the procedures set out in its Guidelines for Carcinogen Risk Assessment to make this determination.

c. Application of EPA's Carcinogen Assessment Guidelines. EPA's methodology for adjusting RQs for potential carcinogens is derived from the Agency's Guidelines on Carcinogen Risk Assessment. The comments addressed in this section are directed toward the Guidelines' classification of potential carcinogens. Although the discussion of these issues below is not an independent defense of the Guidelines, the Agency's responses to public comments in this rulemaking are fully consistent with EPA's response to comments received during preparation of the final Guidelines.

Two commenters objected to the Agency's lack of distinction between the B1 and B2 weight-of-evidence Groups for hazard ranking purposes. These commenters suggested that weight-of-evidence Groups B1 and B2 be distinguished by assigning B2 potential carcinogens hazard rankings one level higher than the hazard rankings for B1 potential carcinogens.

As discussed in Section II.B.1 above, the Agency has divided weight-of-evidence Group B into two subgroups, B1 and B2. Where there is limited evidence of carcinogenicity from epidemiologic studies, a hazardous substance usually is placed in Group B1. Hazardous substances for which there is "sufficient" evidence from animal studies and "inadequate" evidence or "no data" from human epidemiologic studies are usually placed in Group B2. The decision to divide Group B into two subgroups reflects only the type of evidence of carcinogenicity, not a judgment that B2 substances are of lesser concern than B1 substances. Furthermore, because it is reasonable to treat hazardous substances for which there is sufficient evidence of carcinogenicity in animals (Group B2) as if they present a carcinogenic risk to humans, such substances, along with other substances for which there is limited evidence from human epidemiologic studies (Group B1), are classified as probable human carcinogens (Group B). Thus, the Agency believes that, for RQ adjustment purposes, no distinction in levels of concern is warranted between Group B1 and Group B2 substances.

Two commenters suggested that the Agency not count benign tumors equally with malignant tumors when there is no evidence that the benign tumors are precursors of malignant tumors or are life threatening. EPA agrees with the commenters that benign tumors should not be treated equally with malignant tumors if there is no evidence that the benign tumors will progress to malignancies of the same histogenic origin. It is recognized, however, that benign tumors frequently induce malignant tumors and that benign tumors often progress to malignant tumors (see 51 FR 33992, 33994, citing Interdisciplinary Panel on Carcinogenicity, 1984, Science 225:686, note 4). In such cases, the Agency's consideration of benign tumor data in assessing potential carcinogenicity is appropriate.

Several commenters disagreed with the Agency's use of body surface area ratios for deriving human potency values from animal potency calculations and recommended the use of body-weight ratios instead. The commenters argued that the use of body surface area as an interspecies scaling factor is based on data relating to the noncarcinogenic effects of drugs. The Agency's use of body surface area to extrapolate from animals to humans was discussed in the response to comments on the Proposed Guidelines for Carcinogen Risk Assessment. In that response, the Agency concluded that the choice of the body surface area scaling factor could be justified by the data on effects of drugs in various species, and that EPA would continue to use this scaling factor unless data on a specific agent suggests that a different scaling factor is justified. Furthermore, because RQs are based on a relative ranking of substances, the consistent application of scaling factors to all substances should not have a material effect on the relative rankings.

Two commenters objected to the Agency's policy of pooling tumors at different sites. The Agency pools tumor sites, however, only when each site, viewed separately, shows a significant elevated tumor incidence. EPA believes that pooling of tumor sites is justified in these limited circumstances because an agent that induces cancer in two locations is of greater concern than an agent that induces cancer in only one location.

The same two commenters objected to the Agency's use of effective dose (which takes into account absorption, distribution, metabolism, and excretion of potential carcinogens) to calculate potency. The commenters argued that administered dose (the actual experimental dose) should be used to estimate relative carcinogenic potency for purposes of assigning RQs. The commenters acknowledged that effective dose is appropriate for estimating absolute measures of risk. The commenters failed to demonstrate, however, that effective dose is inappropriate for measuring relative risk. As a practical matter, for most hazardous substances (approximately 90 percent), EPA uses administered dose because the Agency lacks information necessary to distinguish between administered dose and effective dose. Nevertheless, where such information is available, the Agency prefers to use effective dose rather than administered dose, because the former is more appropriate for measuring relative levels of risk (e.g., RQ levels). Effective dose is used to determine carcinogenic potency only when a substance has undergone extensive studies that have been subject to peer review.

One commenter stated that the Agency proposed to regulate animal carcinogens in the same manner as known human carcinogens and that regulation should focus on exposures to substances with known human health effects. This commenter is mistaken in believing that the RQ adjustment methodology treats animal and human carcinogens equally. The hazard ranking methodology used to establish RQs for potential carcinogens assigns lower RQs to known human carcinogens of the same potency as known animal carcinogens for which the human evidence is limited or inadequate. Moreover, EPA does not believe that its regulation of potential carcinogens should be limited to those which have *known* human health effects, because the Agency strongly believes that animal data are relevant to predict the potential for a carcinogenic response at some dose in humans.

One commenter argued that extrapolation from continuous low-dose exposure studies to effects of one-time releases cannot be made. The Agency acknowledges that estimating the absolute effect of one-time releases from experimental data is difficult. However, the establishment of RQs is not based on an assessment of absolute effects, and the Agency believes that the Guidelines for Carcinogen Risk Assessment (which were followed in this rulemaking) provide a reasonable basis for determining a relative ranking of potential carcinogens. These guidelines have been peer reviewed and revised based on public comments and therefore provide a reasonable basis for carcinogenic assessment. Furthermore, the commenter failed to note certain implications of the relationship between one-time releases and one-time exposures. One-time releases can contaminate water or soil, resulting in continuous low-dose exposures over a period of years. Thus, the Agency's extrapolation from continuous low-dose

exposure studies to effects of one-time releases is reasonable.

This commenter also noted that there are significant uncertainties involved in low-dose extrapolation. EPA agrees and, therefore, has developed an RQ methodology that does not use low-dose extrapolation. The methodology relies instead on the ED10, that is, the dose that causes an increased cancer incidence of 10 percent. Use of the ED10 is advantageous because it eliminates the issue of low-dose extrapolation for RQ adjustment purposes.

The same commenter argued that low doses of certain heavy metals are essential to human health, and that low exposures to suspected carcinogens may not pose significant incremental risks. Thus, according to the commenter, extrapolation over a wide range of doses may not be appropriate.

EPA agrees with the commenter that certain substances can have both beneficial effects at low doses and toxic effects at high doses. In addition, low doses can have both beneficial and toxic effects simultaneously. The question of whether a particular release will cause exposed individuals to experience toxic effects, however, is a question of risk assessment to be made by the Federal On-Scene Coordinator (OSC) based on all available information pertinent to the particular release. As stated earlier, the establishment and adjustment of RQs is intended to be a reporting trigger rather than a risk assessment.

For the reasons discussed above, EPA has decided at this time that no changes to the Agency's Guidelines for Carcinogen Risk Assessment are necessary. Nevertheless, the Agency continually reviews the Guidelines; if new information or procedures become available, the Agency will consider whether revisions are warranted.

C. Substances for Which RQs Are Adjusted

1. Summary

Today's final rule adjusts the RQs for six of the 273 hazardous substances whose RQs were proposed to be adjusted in the March 16, 1987 NPRM. These six RQ adjustments are shown in the following table:

Hazardous substance	Statutory RQ	Proposed and final RQ adjustment
1,4-Dioxane	1	100
2-Ethoxyethanol	1	1000
Ethylene oxide	1	10
2-Nitropropane	1	10
Perchloroethylene	1	100
Saccharin and salts	1	100

EPA has promulgated the proposed RQ adjustments without change for each of these six substances. For the reasons discussed in Section I.B. of this preamble, the Agency has decided to expedite the promulgation of RQ adjustments for these six substances.

2. Response to Comments

Public comments on the March 16, 1987 NPRM addressed proposed RQ adjustments for three of the six hazardous substances in this rulemaking: 1,4-dioxane, saccharin, and perchloroethylene. No comments were received on the proposed RQ adjustments for 2-ethoxyethanol, ethylene oxide, and 2-nitropropane.

Two commenters supported adjusting the RQ for 1,4-dioxane from the one-pound statutory level to 100 pounds. One commenter supported the proposed RQ adjustment of 100 pounds for saccharin because, the commenter suggested, the new reporting level would be consistent with public health concerns in general, and with the lack of hazard posed by a potential release of between one and 100 pounds of saccharin during transportation. The Agency agrees that the one-pound statutory RQ for saccharin does not appropriately reflect its carcinogenic potential. Saccharin is a weight-of-evidence Group C, potency Group 3 substance which therefore receives a low hazard ranking and a 100-pound RQ.

Three commenters recommended that perchloroethylene should be classified as a weight-of-evidence Group C substance, rather than as a Group B2 substance as proposed in the March 16, 1987 NPRM. The available rat tumor data and mouse tumor data, when considered together, support the Agency's current position that perchloroethylene should fall into the B2 category based on sufficient animal evidence of carcinogenicity (see Addendum to Health Assessment Document for Tetrachloroethylene (Perchloroethylene), External Review Draft, April 2, 1986; NTIS #PB86-174489). EPA's position on this issue is consistent with the IARC classification of perchloroethylene. However, it is important to note that EPA's B2 classification for perchloroethylene is based on a draft carcinogenicity assessment that has not yet been finalized. If this classification changes based on the final assessment, and the change warrants an adjustment of the RQ for perchloroethylene, the RQ will be adjusted in a future rulemaking. Pending the results of the Agency's final carcinogenicity assessment, the B2 classification and 100-pound RQ adjustment for perchloroethylene will be maintained in this final rule.

In a final rule published elsewhere in today's **Federal Register**, the Agency responds to public comments on 254 of the 273 RQ adjustments proposed in the March 16, 1987 NPRM. As explained in Section II.C.2.i of the preamble to that final rule, EPA will address the RQs for the remaining 13 substances that were the subject of the March 16, 1987 NPRM in a future action.

III. SUMMARY OF SUPPORTING ANALYSES

A. Executive Order No. 12291

Executive Order (E.O.) 12291 requires that regulations be classified as major or nonmajor for purposes of review by the Office of Management and Budget (OMB). According to E.O. 12291, major rules are regulations that are likely to result in:

(1) An annual effect on the economy of $100 million or more; or

(2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

An economic analysis performed by the Agency, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460, shows that today's final rule is nonmajor, because the rule will result in estimated net cost savings of $1.5 million annually. The annual net cost savings of all RQ adjustments promulgated or proposed to date (including those contained in this final rule) is estimated to be $34.7 million. It should be noted that these net cost savings reflect only those effects of the RQ adjustments that are: (1) Readily quantifiable in dollars; and (2) associated with the notification requirements under CERCLA section 103 and SARA section 304 (including the associated activities of recordkeeping, notification processing, monitoring, and response).

This final rule has been submitted to OMB for review, as required by E.O. No. 12291.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have a "significant impact on a substantial number of small entities." To determine whether a Regulatory Flexibility Analysis was necessary for today's final rule, a preliminary analysis was conducted using a computer model that simulated the typical operation of a small U.S. chemical company.

The results of the simulation indicate that the upper-bound total cost of compliance to small firms is negligible. See the Regulatory Impact Analysis of Reportable Quantity Adjustments Under Sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act, Volume I, March 1985, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460. Therefore, because today's final rule is not expected to have a significant impact on small entities, EPA certifies that no Regulatory Flexibility Analysis is necessary.

C. Paperwork Reduction Act

EPA requires an Information Impact Analysis for all rules that impose a paperwork burden on the public. This analysis estimates the burden imposed on parties outside EPA for activities such as notification or recordkeeping. Today's final rule will provide a decrease in the paperwork burden imposed on the regulated community for information collection associated with fewer releases being reportable. Because the effect of this final rule on the paperwork burden is a reduction, EPA has determined that no further Information Impact Analysis need be performed.

The information collection requirements contained in this rule have been approved by the OMB under the provisions of the Paperwork Reduction Act, 44 U.S.C. Section 3501 *et seq.*, and have been assigned OMB control number 2050–0046.

The public reporting burden for this collection of information is estimated to vary from 8 to 11 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

List of Subjects in 40 CFR Part 302

Air pollution control, Chemicals, Hazardous materials, Hazardous materials transportation, Hazardous substances, Hazardous wastes, Intergovernmental relations, Natural resources, Oil pollution, Pesticides and pests, Reporting and recordkeeping requirements, Superfund, Waste treatment and disposal, Water pollution control, Water supply.

Dated: June 26, 1989.

William K. Reilly,

Administrator.

For the reasons set forth in the preamble, 40 CFR Part 302 is amended as follows:

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

1. The authority citation for Part 302 is revised to read as follows:

Authority: 42 U.S.C. 9602; 33 U.S.C. 1321 and 1361.

§ 302.4 [Amended]

2. Section 302.4 is amended by revising the following entries in Table 302.4 and Appendix A to read as set forth below. The note preceding Table 302.4 is republished without change.

* * * * *

Note: The numbers under the column headed "CASRN" are the Chemical Abstracts Service Registry Numbers for each hazardous substance. Other names by which each hazardous substance is identified in other statutes and their implementing regulations are provided in the "Regulatory Synonyms" column. The "Statutory RQ" column lists the RQs for hazardous substances established by section 102 of CERCLA. The "Statutory Code" column indicates the statutory source for designating each substance as a CERCLA hazardous substance: "1" indicates that the statutory source is section 311(b)(4) of the Clean Water Act, "2" indicates that the source is section 307(a) of the Clean Water Act, "3" indicates that the source is section 112 of the Clean Air Act, and "4" indicates that the source is RCRA section 3001. The "RCRA Waste Number" column provides the waste identification numbers assigned to various substances by RCRA regulations. The column headed "Category" lists the code letters "X," "A," "B," "C," and "D," which are associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively. The "Pounds (kg)" column provides the reportable quantity adjustment for each hazardous substance in pounds and kilograms.

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code†	RCRA waste No.	Category	Pounds (Kg)
*	*	*	*	*	*	*	*
1,2-Benzisothiazolin-3-one, 1,1-dioxide, and salts	81072	Saccharin and salts	1*	4	U202	B	100 (45.4)
*	*	*	*	*	*	*	*
1,4-Diethylene dioxide	123911	1,4-Dioxane	1*	4	U108	B	100 (45.4)
*	*	*	*	*	*	*	*
1,4-Dioxane	123911	1,4-Diethylene dioxide	1*	4	U108	B	100 (45.4)
*	*	*	*	*	*	*	*
Ethene, 1,1,2,2-tetrachloro-	127184	Perchloroethylene Tetrachloroethene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
*	*	*	*	*	*	*	*
2-Ethoxyethanol	110805	Ethylene glycol monoethyl ether	1*	4	U359	C	1000 (454)
*	*	*	*	*	*	*	*
Ethylene glycol monoethyl ether	110805	2-Ethoxyethanol	1*	4	U359	C	1000 (454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code†	RCRA waste No.	Category	Pounds (Kg)
* * *	*	* * *			*		
Ethylene oxide	75218	Oxirane	1*	4	U115	A	10 (4.54)
* * *	*	* * *			*		
2-Nitropropane	79469	Propane, 2-nitro-	1*	4	U171	A	10 (4.54)
* * *	*	* * *			*		
Oxirane	75218	Ethylene oxide	1*	4	U115	A	10 (4.54)
* * *	*	* * *			*		
Perchloroethylene	127184	Ethene, 1,1,2,2-tetrachloro- Tetrachloroethene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
* * *	*	* * *			*		
Propane, 2-nitro-	79469	2-Nitropropane	1*	4	U171	A	10 (4.54)
* * *	*	* * *			*		
Saccharin and salts	81072	1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts	1*	4	U202	B	100 (45.4)
* * *	*	* * *			*		
Tetrachloroethene	127184	Ethene, 1,1,2,2-tetrachloro- Perchloroethylene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
Tetrachloroethylene	127184	Ethene, 1,1,2,2-tetrachloro- Perchloroethylene Tetrachloroethene	1*	2,4	U210	B	100 (45.4)
* * *	*	* * *			*		

†—indicates the statutory source as defined by 1, 2, 3, or 4 below:
1—indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 311(b)(4)
2—indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 307(a)
3—indicates that the statutory source for designation of this hazardous substance under CERCLA is CAA Section 112
4—indicates that the statutory source for designation of this hazardous substance under CERCLA is RCRA Section 3001
1*—indicates that the 1-pound RQ is a CERCLA statutory RQ

Appendix A

SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES

CASRN	Hazardous substance
* * * * *	
75218	Ethylene oxide Oxirane
* * * * *	
79469	Propane, 2-nitro- 2-Nitropropane
* * * * *	
81072	1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts Saccharin and salts
* * * * *	
110805	Ethylene glycol monoethyl ether 2-Ethoxyethanol
* * * * *	
123911	1,4-Diethylene dioxide 1,4-Dioxane
* * * * *	
127184	Ethene, 1,1,2,2-tetrachloro- Perchloroethylene Tetrachloroethene Tetrachloroethylene
* * * * *	

[FR Doc. 89-15745 Filed 8-11-89; 8:45 am]

BILLING CODE 6560-50-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 116, 117, and 302

[SW H-FRL 3372-8]

Reportable Quantity Adjustments; Delisting of Ammonium Thiosulfate

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Sections 103(a) and (b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, require that persons in charge of vessels or facilities from which hazardous substances have been released in quantities that are equal to or greater than their reportable quantities (RQs) immediately notify the National Response Center of the release. Section 102(b) sets an RQ of one pound for hazardous substances, except those substances for which different RQs have been established pursuant to section 311(b)(4) of the Clean Water Act (CWA). In addition to these reporting requirements, section 304 of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires that releases of hazardous substances in quantities equal to or greater than their RQs (or one pound if a reporting trigger is not established by regulation) be reported to State and local authorities.

Section 102(a) of CERCLA authorizes the U.S. Environmental Protection Agency (EPA or "the Agency") to adjust RQs for hazardous substances and to designate as hazardous substances those substances that, when released into the environment, may present substantial danger to the public health or welfare or the environment. Currently, there are 725 CERCLA hazardous substances.[1] In this rulemaking, EPA is promulgating final RQ adjustments for 258 hazardous substances. Of these 258 hazardous substances, 254 had RQs proposed for adjustment by EPA in a Notice of Proposed Rulemaking (NPRM) published on March 16, 1987 (52 FR 8140).[2] RQs for four additional hazardous substances that were not proposed for adjustment in the March 16, 1987 NPRM are also included in this final rule. These four hazardous substances are waste streams that were listed as hazardous under section 3001 of the Resource Conservation and Recovery Act (RCRA)

[1] See Note 1 at the end of the text of this preamble.

[2] See Note 2 at the end of the text of this preamble.

(and, therefore, were designated as hazardous under CERCLA) after the March 16, 1987 proposal was published.[3]

By making the adjustments contained in this rulemaking, the Agency will be able to focus its resources on those releases that are most likely to pose potential threats to public health or welfare or the environment. In addition, by making these adjustments, EPA will relieve the regulated community of the burden of reporting releases that are unlikely to pose such threats.

EFFECTIVE DATE: October 13, 1989.

ADDRESSES: The toll-free telephone number of the National Response Center is 1-800/424-8802; in the Washington, DC metropolitan area the number is 1-202/267-2675.

Docket: Copies of materials relevant to this rulemaking are contained in Room M2427 at the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 (Docket Number 102 RQ-273C). The docket is available for inspection between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, excluding Federal holidays. To review docket materials, you may make an appointment by calling 1-202/382-3046. The public may copy a maximum of 50 pages from any regulatory docket at no cost. Additional copies cost $.20 per page.

FOR FURTHER INFORMATION CONTACT: Ivette O. Vega, Response Standards and Criteria Branch, Emergency Response Division, U.S. Environmental Protection Agency (OS-210), 401 M Street, SW., Washington, DC 20460, or the RCRA/Superfund Hotline at 1-800/424-9346; in the Washington, DC metropolitan area at 1-202/382-3000.

SUPPLEMENTARY INFORMATION: The contents of this preamble are listed in the following outline:

I. Introduction

A. Statutory Authority

Section 102(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (Pub. L. 96-510), 42 U.S.C. 9601 *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (Pub. L. 99-499), establishes reportable quantities (RQs) of one pound for releases of hazardous substances, except for hazardous substances whose RQs were established at a different level pursuant to section 311 of the Clean Water Act (CWA). Section 102(a) of CERCLA authorizes the Administrator of the U.S. Environmental Protection Agency (EPA or "the Agency") to adjust all of these RQs by regulation.

Sections 103(a) and (b) of CERCLA require that the person in charge of a vessel or facility notify the National Response Center immediately when there is a release of a hazardous substance in an amount equal to or greater than the RQ for that substance. This notification requirement serves as a trigger for informing the government of a release so that Federal personnel can evaluate the need for a Federal removal or remedial action and undertake any necessary action in a timely fashion. Under section 104 of CERCLA, the Federal government may respond whenever there is a release or a substantial threat of a release of a hazardous substance into the environment. Response activities are to be taken, to the extent practicable, in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300), which was originally developed under the CWA and which has been revised to reflect the responsibilities and authority created by CERCLA.

If a release meets certain statutory criteria set forth in CERCLA section 103(f)(2), the release may be subject to more limited reporting requirements. Specifically, a release is subject to these limited requirements if the release: (1) Is continuous and stable in quantity and rate, and is from a facility for which notification has been given under CERCLA section 103(c), or (2) is a release for which notification has been given under CERCLA sections 103(a) and (b) for a period sufficient to establish the continuity, quantity, and regularity of the release. Notification must still be given annually and when there is a statistically significant increase in the release. In addition, CERCLA section 103 provides a reporting exemption for federally permitted releases. The definition of federally permitted release in CERCLA section 101(10) specifically identifies releases permitted under certain other Federal or State programs. Several commenters claimed that their particular releases are subject to continuous and/or federally permitted release treatment. EPA published proposed regulations to clarify the reduced reporting requirement for continuous releases on April 19, 1988 (53 FR 12868). EPA also clarified the reporting exemption for federally permitted releases in proposed regulations published on July 19, 1988 (53 FR 27268). Comments on continuous and federally permitted release issues submitted in response to the March 16, 1987 NPRM will be addressed in the upcoming final rules for continuous and federally permitted releases.

In addition to the reporting requirements established by CERCLA, section 304 of SARA Title III requires the owners or operators of certain facilities to report releases of CERCLA hazardous substances to State and local authorities. SARA Title III section 304 notification must be given immediately after the release of an RQ or more (one pound or more if a reporting trigger is not established by regulation) to the community emergency coordinator for each local emergency planning committee for any area likely to be affected by the release, and to the State emergency response commission of any State likely to be affected by the release. These notification requirements apply

[3] See Note 3 at the end of the text of this preamble

only to releases that have potential for off-site exposure and that are from facilities at which a "hazardous chemical" (defined by regulations under the Occupational Safety and Health Act of 1970 (29 CFR 1910.1200(c)) and section 311 of SARA Title III) is produced, used, or stored.

Section 109 of CERCLA and section 325 of SARA Title III authorize EPA to assess civil penalties for failure to report releases of hazardous substances that equal or exceed their RQs. Section 103 of CERCLA, as amended, authorizes EPA to seek criminal penalties for submitting false or misleading information in a notification made pursuant to CERCLA section 103, and increases the maximum penalties and years of imprisonment for violation of the CERCLA section 103 reporting requirement.

B. Background of this Rulemaking

On May 25, 1983, EPA proposed a rule (48 FR 23552) to clarify procedures for reporting releases of CERCLA hazardous substances and to adjust RQs for 387 of the then 696 hazardous substances.[4] In the May 25, 1983 NPRM, EPA also compiled for the first time the list of "hazardous substances" defined under section 101(14) of CERCLA. In the preamble to that NPRM, EPA discussed in detail the CERCLA notification provisions, the methodology and criteria used to adjust the RQ levels, and the RQ adjustments proposed under section 102 of CERCLA and under section 311 of the CWA. EPA promulgated final RQ adjustments for 340 hazardous substances in an April 4, 1985 final rule (50 FR 13456) and for an additional 102 hazardous substances in a September 29, 1986 final rule (51 FR 34534). In an NPRM published on March 16, 1987 (52 FR 8140), EPA proposed RQ adjustments for 273 hazardous substances. The March 16, 1987 Federal Register also contained an NPRM in which EPA proposed RQ adjustments for radionuclides.[5] In addition, in an NPRM published on March 2, 1988 (53 FR 6762), EPA reproposed RQ adjustments for lead metal and four lead compounds, and proposed to delist ammonium thiosulfate as a CERCLA hazardous substance.

In this rulemaking, EPA is promulgating final RQ adjustments for 258 hazardous substances, including 254 of the 273 substances proposed for adjustment in the March 16, 1987 NPRM.[6] EPA promulgates final RQ adjustments for six of these 273 hazardous substances elsewhere in today's Federal Register. As explained in Section II.C.2.i below, EPA will address RQ adjustments for the remaining 13 of the 273 hazardous substances in a future action.

Section II of this preamble discusses the RQ adjustments promulgated in this rulemaking and the methodology used in making these adjustments. Section I also includes EPA's responses to public comments on the March 16, 1987 NPRM that are relevant to the 258 RQ adjustments made in this rule and to the RQ adjustment methodology on which these 258 adjustments are based. Section III discusses RQ adjustments made under section 311 of the CWA. In finalizing these RQ adjustments, this rule amends Table 302.4 of 40 CFR Part 302 and Table 117.3 of 40 CFR Part 117. Section IV explains the delisting of ammonium thiosulfate as a hazardous substance. Section V discusses the replacement of the registered trademark, "Kelthane," with the generic name, dicofol. In making these changes concerning ammonium thiosulfate and dicofol, this rule amends Tables 116.4A and 116.4B of 40 CFR Part 116. Section VI provides a summary of the analyses supporting this rulemaking.

II. Reportable Quantity Adjustments

A. Introduction

In this rulemaking, the Agency adjusts RQs based upon specific scientific and technical criteria that relate to the possibility of harm from the release of a hazardous substance at certain levels. The quantity released is but one factor considered by the government when assessing the need to respond to such a release. Other factors, assessed on a case-by-case basis, include but are not limited to: (1) The location of the release; (2) its proximity to drinking water supplies or other valuable resources; and (3) the likelihood of exposure or injury to nearby populations. The RQ adjustments made today will enable the Agency to focus its resources on those releases that are most likely to pose potential threats to public health or welfare or the environment. These adjustments will also relieve the regulated community and emergency response personnel from the burden of making and responding to reports of releases that are unlikely to pose such threats.

B. Reportable Quantity Adjustment Methodology

1. Summary of the Methodology

The Agency has wide discretion in adjusting the statutory RQs for hazardous substances under CERCLA. Administrative feasibility and practicality are important considerations. The Agency's methodology for adjusting RQs begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each hazardous substance. The intrinsic properties examined—called "primary criteria"—are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, chronic toxicity,[7] and potential carcinogenicity.

The Agency ranks hazardous substances for each intrinsic property (except potential carcinogenicity) on a five-tier scale, associating a specific range of values on each scale with a particular RQ value.[8] This five-tier scale uses the five RQ levels of one, 10, 100, 1000, and 5000 pounds, originally established pursuant to CWA section 311 (see 40 CFR 117 and 44 FR 50776). For hazardous substances evaluated for potential carcinogenicity, each substance is assigned a hazard ranking of "high," "medium," or "low." These hazard rankings correspond to RQ levels of one, 10, and 100 pounds, respectively (see Section II.B.2.a of the preamble to the final RQ adjustment rule published elsewhere in today's Federal Register). Each hazardous substance evaluated under the various primary criteria is assigned several tentative RQ values based on its particular intrinsic properties as data allow. The lowest of the tentative RQs becomes the "primary

[4] Since the May 25, 1983 NPRM, 31 substances have been added and two substances have been deleted from the CERCLA list, bringing the total number of CERCLA hazardous substances to 725. The 31 substances added to the list are: waste stream F024 (49 FR 5308); coke oven emissions (49 FR 36560); waste streams F020, F021, F022, F023, F026, F027, and F028 (50 FR 1978); waste streams K111, K112, K113, K114, K115, and K116, o-toluidine and p-toluidine (50 FR 42936); waste streams K117, K118, and K136 (51 FR 5327); 2-ethoxyethanol (51 FR 6537); waste streams K123, K124, K125, and K126 (51 FR 37725); and waste streams K064, K065, K066, K088, K090, and K091 (53 FR 35412). The two substances deleted from the list are: iron dextran (53 FR 43878) and strontium sulfide (53 FR 43881).

[5] RQ adjustments for radionuclides were promulgated in a final rule published on May 24, 1989 (54 FR 22524).

[6] For an explanation of the four additional substances in this final rulemaking, see the "Summary" above.

[7] EPA is aware that some chronic effects result from acute (short-term) exposures and considers such data in the chronic toxicity evaluations. The Agency is further evaluating data on chronic effects resulting from acute exposures to ensure that such data receive adequate consideration in the RQ adjustment process.

[8] All of the RQs promulgated in this rulemaking are subject to the Agency's review of the most recent systemic (i.e., relating to a particular organ system) toxicity data. These RQs will be revised, if necessary, in a future rulemaking based on the results of this review.

criteria RQ" for that substance. After the primary criteria RQs are assigned, substances are further evaluated for their susceptibility to certain degradative processes, which are used as secondary RQ adjustment criteria. These natural degradative processes are biodegradation, hydrolysis, and photolysis (BHP). (For discussion of the application of BHP to potential carcinogens, see Section II.B.2.a of this preamble.)

If a hazardous substance, when released into the environment, degrades relatively rapidly to a less hazardous form by one or more of the BHP processes,[9] its RQ (as determined by the primary RQ adjustment criteria) is raised one level. This adjustment is made because the relative potential for harm to public health or welfare or the environment posed by the release of such a substance is reduced by these degradative processes. Conversely, if a hazardous substance degrades to a more hazardous product after its release, the original substance is assigned an RQ equal to the RQ for the more hazardous substance, which may be one or more levels lower than the RQ for the original substance. The downward adjustment is appropriate because the hazard posed by the release of the original substance is increased as a result of BHP.

To identify those CERCLA hazardous substances that may be potential carcinogens, EPA reviewed four sources of human epidemiologic and/or animal bioassay data on hazardous substances that suggest possible carcinogenic effect. These sources are: (1) The Annual Reports on Carcinogens of the National Toxicology Program (NTP), U.S. Department of Health and Human Services; (2) the Monographs of the International Agency for Research on Cancer (IARC); (3) final Agency determinations published in the **Federal Register** identifying substances as potential carcinogens; and (4) ongoing determinations by the Agency's Office of Health and Environmental Assessment that substances may be potential carcinogens, based on either published or unpublished data.[10] The Agency compared the list of substances derived from these four sources with the list of CERCLA hazardous substances to determine which hazardous substances should be evaluated for potential carcinogenicity.

Not all of the substances so identified are subsequently ranked for potential carcinogenicity. Only those substances that fall within the Agency's weight-of-evidence Groups A, B, or C discussed below (i.e., known, probable, or possible human carcinogens) are ranked and assigned tentative RQs based on potential carcinogenicity.

The evaluation of hazardous substances for potential carcinogenicity initially involves a qualitative assessment of the available scientific literature on the substance. The data are reviewed to determine the degree of certainty or weight of evidence that a particular hazardous substance is a human carcinogen. The substance is then classified in an overall weight-of-evidence category (A, B, C, D, or E).

A hazardous substance is placed in Group A (known human carcinogen) only if "sufficient" evidence from human epidemiologic studies supports a causal connection between exposure to the hazardous substance and cancer. Group B (probable human carcinogen) is divided into two subgroups, B1 and B2. Group B1 includes hazardous substances for which the weight of evidence of human carcinogenicity based on epidemiologic studies is "limited." Group B2 includes hazardous substances for which there is "no data," "inadequate evidence," or "no evidence" of human carcinogenicity from epidemiologic studies, but for which the weight of evidence of carcinogenicity based on animal studies is "sufficient." Group C (possible human carcinogen) includes hazardous substances with "limited" evidence of carcinogenicity in animals and "inadequate evidence," "no data," or "no evidence" from human epidemiologic studies. As mentioned in the March 16, 1987 NPRM (52 FR 8144), Group D substances (not classifiable for human carcinogenicity) and Group E substances (evidence of noncarcinogenicity for humans) are not considered potential carcinogens for purposes of this rulemaking.

The evaluation of hazardous substances for potential carcinogenicity also involves a quantitative assessment of the available data to calculate the relative strength of a hazardous substance to elicit a carcinogenic response (i.e., the "potency factor").[11] This quantitative assessment allows the Agency to rank potential carcinogens on a numerical scale by identifying the most potent substances as the most hazardous. Group 1 includes those hazardous substances with the highest potencies. Other potential carcinogens with medium and low potencies are placed in Groups 2 and 3, respectively.

The final step in the hazard ranking procedure is to combine the qualitative weight-of-evidence groups and the quantitative potency factor groups using a matrix to yield a relative hazard ranking for each substance. Thus, hazard rankings are based on two factors—weight of evidence and potency—that the Agency believes are important in describing carcinogenic hazards. The hazard ranking matrix (see Section II.B.1 of the final RQ adjustment rule published elsewhere in today's **Federal Register**) is used to group the potential carcinogens into "high," "medium," and "low" hazard categories. The matrix is arranged so that as the weight of evidence decreases and the potency factors decrease, the hazard ranking also decreases. RQ levels for potential carcinogens are then assigned to the hazard rankings as follows: high—one-pound RQ; medium—10-pound RQ; and low—100-pound RQ. See Section II.B.2.a of this preamble for a discussion of the application of BHP to potential carcinogen RQs.

For a more detailed discussion of the RQ adjustment methodology based on the primary criterion of potential carcinogenicity, see the preamble to the March 16, 1987 NPRM (52 FR 8140) and the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460. For a discussion of the Agency's response to public comments on the proposed one-, 10-, and 100-pound RQs for potential carcinogens, see Section II.B.2.a of the preamble to the final RQ adjustment rule published elsewhere in today's **Federal Register**.

EPA stated in the March 16, 1987 NPRM (see 52 FR 8146) that it was reviewing its position on consideration of benign tumors and pooling of tumor sites and types, as set forth in the Agency's Guidelines for Carcinogen

[9] The specific thresholds for the application of BHP to hazardous substances are discussed in the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 1, March 1985, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

[10] In addition to this application of unpublished data to identify potential carcinogens, EPA intends to use such data for the purpose of ranking potential carcinogens under the CERCLA RQ methodology. Currently, the Agency is evaluating unpublished data received on the weight of evidence and potency of certain potential carcinogens and will present the results of this evaluation, along with any RQ adjustments, in a future rulemaking.

[11] For an explanation of how potency factors are calculated, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

Risk Assessment.[12] This process is now complete, and one substance (1,2-propylenimine) will have its final RQ (one pound) different from its proposed level (10 pounds) as a result of the review (see Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, and Evaluation of the Potential Carcinogenicity of 1,2-Propylenimine, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460).[13]

2. Responses to Comments Received on the Methodology

The Agency received 35 comment letters on the March 16, 1987 NPRM (52 FR 8140). Ten of these letters contained comments that address the RQ adjustment methodology proposed in that NPRM for evaluating CERCLA hazardous substances for potential carcinogenicity. The comments on the RQ adjustment methodology are grouped into five categories: (1) Carcinogen hazard ranking methodology and the 100-pound maximum RQ; (2) the use of NTP and IARC publications in the Agency's identification methodology; (3) the Agency's use of its Guidelines for Carcinogen Risk Assessment to derive RQs; (4) the application of the secondary RQ adjustment criteria of BHP to potential carcinogens; and (5) the application of the CWA mixture rule to hazardous waste streams. Public comments on the first three of these categories are addressed in a final rule published elsewhere in today's **Federal Register**. In that final rule, EPA promulgates RQ adjustments for six of the 273 hazardous substances whose RQs were proposed to be adjusted in the March 16, 1987 NPRM, and addresses all public comments relevant to those six RQ adjustments, including the first three comment categories mentioned above.

In the final rule published elsewhere in today's **Federal Register**, the Agency promulgates a carcinogen hazard ranking methodology that assigns 100-pound RQs to substances in weight-of-evidence Group C and potency Group 3.[14] However, as mentioned in Section II.B.2.a of the preamble to that final rule, the Agency plans to evaluate the RQ adjustment methodology for potential carcinogens, particularly the weight-of-evidence Group C, potency Group 3 substances. The results of this evaluation will be addressed in a future action.

The following discussion contains Agency responses to public comments on the application of BHP to potential carcinogens and the application of the CWA mixture rule to hazardous waste streams.

a. Application of BHP to Potential Carcinogens. In the March 16, 1987 NPRM, sufficient data were available to justify a one-level RQ increase, based on BHP, for six hazardous substances identified as potential carcinogens (bis(chloromethyl)ether, chloromethyl methyl ether, dimethyl sulfate, formaldehyde, 2-naphthalenamine, and waste stream K017). No comments were received on these proposed adjustments and, therefore, the RQs of these six hazardous substances are increased to 10, 10, 100, 100, 10, and 10 pounds, respectively, in this final rule. These increases are from the one-level-lower primary criteria RQs.

In the March 16, 1987 NPRM, however, the Agency proposed not to apply BHP to certain substances that had been identified as potential carcinogens. Specifically, an upward RQ adjustment based on BHP was not applied to any potential carcinogen with a primary criteria RQ of 100 pounds. In other words, the proposed 100-pound maximum RQ level for potential carcinogens was retained, regardless of the rate of degradation of potential carcinogens in the environment.

Several commenters on the March 16, 1987 NPRM stated that EPA's proposal to apply BHP to potential carcinogens with one- and 10-pound primary criteria RQs, but to preclude application of BHP to those potential carcinogens with primary criteria RQs of 100 pounds, appeared "illogical" because in the commenters' view the decision was not sufficiently explained. The commenters argued that potential carcinogens with 100-pound primary criteria RQs should be eligible for a one-level RQ increase to 1000 pounds based on BHP.

EPA disagrees with the commenters that BHP should be applied to increase RQs for potential carcinogens from 100 to 1000 pounds. Such an approach conflicts with the Agency's decision to not apply BHP to raise the RQ of any substance above the maximum level permitted to be assigned to that substance by the RQ adjustment methodology (i.e., 100 pounds for potential carcinogens and 5000 pounds for other hazardous substances). Thus, just as BHP is not applied to increase RQs for substances other than potential carcinogens above 5000 pounds (see 50 FR 13469, April 4, 1985), BHP is not applied to raise the RQs of potential carcinogens above 100 pounds. The Federal On-Scene Coordinator (OSC) should be notified of releases of 100 pounds or more of potential carcinogens.[15] The OSC can then decide whether a response to releases of these substances should be taken. If the OSC determines that a release of a potential carcinogen at or above the 100-pound RQ level has degraded to a less hazardous, noncarcinogenic substance, and therefore the special properties of potential carcinogens do not apply, the OSC may decide that a Federal response is unnecessary. Accordingly, the Agency has not applied BHP to adjust upward the 100-pound primary criteria RQs of potential carcinogens.

In this final rule, BHP has been applied to raise the primary criteria RQs of the following substances for which BHP was not proposed to be applied in the March 16, 1987 NPRM: acrylonitrile; compounds, waste streams, and unlisted hazardous wastes containing chromium (VI); and 3,3'-dimethoxybenzidine. BHP has been applied to compounds, waste streams, and unlisted hazardous wastes containing chromium (VI) as a result of public comments on the March 16, 1987 NPRM. BHP has been applied to acrylonitrile and 3,3'-dimethoxybenzidine for reasons independent of public comment.[16] For further discussion of the reasons for applying BHP to these substances in this final rule, see Sections II.C.1 and II.C.2.

[12] The Guidelines provide that benign tumors should be considered along with malignant tumors unless there is evidence that the benign tumors do not have the potential to progress to malignancies of the same histogenic origin. The Agency pools tumor sites and types when each site or type, viewed separately, shows a tumor incidence that is elevated significantly above the incidence in control animals (51 FR 33992, September 24, 1986).

[13] EPA announced the RQ revision for 1,2-propylenimine, along with the reasons for the revision, in a supplement to the March 16, 1987 NPRM [see 53 FR 11890, April 11, 1988]. Public comments on that supplement do not affect the RQ adjustment for this hazardous substance. Therefore, the RQ for 1,2-propylenimine is promulgated at one pound, as stated in the April 11, 1988 supplement.

[14] Five individual hazardous substances are in this category: 5-nitro-o-toluidine; saccharin; p-toluidine; 1,1,1,2-tetrachloroethane; and 1,1,2-trichloroethane. EPA is promulgating an RQ adjustment of 100 pounds for saccharin in the final rule published elsewhere in today's **Federal Register**. RQ adjustments of 100 pounds for the other four weight-of-evidence Group C, potency Group 3 substances are promulgated in this final rule. EPA also promulgates RQ adjustments in this final rule for seven waste streams (F002, K073, K095, K096, K112, K113, and K114) that contain one or more of the five weight-of-evidence Group C, potency Group 3 substances. The RQ adjustments promulgated in this final rule are discussed in Section II.C of this preamble.

[15] Section II.B.2.a of the preamble to the final RQ adjustment rule published elsewhere in today's **Federal Register** contains the reasons for this determination.

[16] The change in the proposed RQ for acrylonitrile as a result of applying BHP was announced in a supplement to the proposed rule published on April 11, 1988 (53 FR 11890).

One commenter suggested that end products should determine the RQ of a parent hazardous substance, even when the RQ of a substance would be increased more than one level based on the characteristics of the end products. The Agency considered this possibility before deciding to raise by only one level the RQs of those substances that transform in the environment to less hazardous substances (see 50 FR 13470, April 4, 1985). The Agency selected the one-level upward adjustment because BHP processes are not instantaneous and, while degradation is in process, a large quantity of the more hazardous parent substance may pose a threat to public health or welfare or the environment. The Agency believes that the OSC should have the opportunity to decide whether to respond to the release of a hazardous substance that may persist long enough to pose such a threat before degrading to a less hazardous substance.

b. Application of CWA Mixture Rule to Hazardous Waste Streams. Under 40 CFR 302.6, if a person in charge of a vessel or facility knows the percentage composition of a waste stream, the CWA mixture rule may be applied. The CWA mixture rule provides that "[d]ischarges of mixtures and solutions are subject to [regulation] only where a component hazardous substance of the mixture or solution is discharged in a quantity equal to or greater than its RQ" (44 FR 50767, August 29, 1979). The RQs for different hazardous substances are not additive under the mixture rule, so that the release of a mixture containing half an RQ of one hazardous substance and half an RQ of another hazardous substance does not trigger the CERCLA section 103 reporting requirements (see 50 FR 13463, April 4, 1985). Reporting is required, however, if the concentrations of all of the hazardous constituents present in the mixture are not known and the total quantity released exceeds the RQ of the hazardous constituent within the mixture that has the lowest RQ.

One commenter supported the Agency's application of the CWA mixture rule. Another commenter expressed the understanding that the RQs for waste streams F001 through F005 would be based on the hazardous constituents present in the waste streams. Thus, according to this commenter, if the only hazardous constituent in an F001 waste stream were perchloroethylene, the applicable RQ would be the 100-pound RQ for perchloroethylene rather than the 10-pound RQ for waste stream F001.

This commenter is correct, provided that perchloroethylene is the only hazardous constituent in the waste stream. It should be emphasized, however, that if the person in charge does not know the constituents contained in the waste stream and, pursuant to 40 CFR 261, the waste is identified as waste stream F001, the 10-pound RQ for waste stream F001 would apply.

In response to these comments and to several other inquiries, the Agency is revising 40 CFR 302.6 in this final rule to clarify reporting requirements for mixtures and solutions (e.g., hazardous waste streams).

C. Substances for Which RQs Are Adjusted

1. Summary

In this final rule, EPA adjusts RQs for 258 hazardous substances, including 254 substances whose RQs were proposed to be adjusted in the March 16, 1987 NPRM. EPA in this rule lowers the RQs of 54 hazardous substances, raises the RQs of 121 hazardous substances, and leaves the RQs of 83 hazardous substances at their statutory levels. The hazardous substances include 187 individual hazardous substances and 71 hazardous waste streams.

The bases for the adjusted RQs of the 187 individual hazardous substances are as follows: 133 on the basis of potential carcinogenicity alone, 23 on the basis of potential carcinogenicity and at least one other primary criterion, and 31 on the basis of criteria other than potential carcinogenicity. The primary criteria RQs for 18 of the 187 individual hazardous substances were adjusted upward one level by applying BHP.

Of the 71 waste streams for which RQs are being adjusted in this rule, 67 were proposed for RQ adjustment in the March 16, 1987 NPRM. The four other hazardous waste streams for which RQs are promulgated in this rulemaking (K123, K124, K125, and K126) were listed as hazardous under section 3001 of RCRA in a final rule that became effective on April 24, 1987 (51 FR 37725, October 24, 1986). Therefore, these hazardous waste streams became CERCLA hazardous substances after publication of the March 16, 1987 NPRM, and their RQs consequently were not proposed for adjustment in that NPRM.

As stated in the October 24, 1986 final rule, if a waste stream contains only one constituent of concern, the RQ for the waste stream will be the same as the RQ for that constituent. The only constituent of concern present in waste streams K123, K124, K125, and K126 is ethylene thiourea (ETU). The Agency retained the statutory one-pound RQ for ETU in the April 4, 1985 final rule (50 FR 13487), pending completion of the Agency's analysis of ETU for potential carcinogenicity. In the March 16, 1987 NPRM, EPA proposed to readjust the RQ for ETU to 10 pounds based on potential carcinogenicity. No comments were received on this proposed RQ adjustment and EPA is promulgating a 10-pound RQ adjustment for ETU in this final rule. Because the RQ for a hazardous waste stream with only one hazardous constituent is the RQ for that constituent, the Agency today also is promulgating RQ adjustments of 10 pounds for waste streams K123, K124, K125, and K126.

In addition to individual hazardous substances and hazardous waste streams, EPA today adjusts RQs for five of the constituents used to determine the RCRA characteristic of extraction procedure (EP) toxicity for unlisted hazardous wastes.[17] Five of the constituents used to determine EP toxicity have been assigned RQs as follows: one pound for arsenic, 10 pounds for hexavalent chromium, and 10 pounds for cadmium, each on the basis of potential carcinogenicity; and one pound for lindane and toxaphene on the basis of aquatic toxicity. An unlisted hazardous waste that exhibits EP toxicity has the RQ stated in Table 302.4 for the contaminant on which the characteristic of EP toxicity is based. The RQ applies to the unlisted waste itself, not merely to the toxic contaminant used as a reference substance for RQ purposes. The RQ for the metal constituents is based on the RQ for soluble metal salts, and not the metal itself.

The final RQ adjustments for 18 hazardous substances have changed from those proposed in the March 16, 1987 NPRM for reasons independent of public comment. These hazardous substances are listed below in Table 1.

TABLE 1.—PROPOSED AND FINAL RQS

Hazardous Substance	Proposed RQ (lbs.)	Final RQ (lbs.)
Acetamide, N-9H-fluoren-2-yl	10	1
Acrylonitrile	10	100
Azaserine	10	1
Benz(c)acridine	10	100
Benzotrichloride	1	10
Chrysene	10	100

[17] Under 40 CFR 302.4(b), a solid waste as defined in 40 CFR 261.4(b) is a CERCLA hazardous substance if (1) it is not excluded from regulation as a hazardous waste under 40 CFR 261.4(b), and (2) it exhibits any of the characteristics identified in 40 CFR 261.20 through 261.24. EP toxicity is one of these characteristics (see 40 CFR 261.24).

TABLE 1.—PROPOSED AND FINAL RQs—Continued

Hazardous Substance	Proposed RQ (lbs.)	Final RQ (lbs.)
1,2-Dibromo-3-chloropropane	10	1
P-dimethylaminoazobenzene	1	10
3,3'-Dimethylbenzidine	100	10
N-nitroso-N-ethylurea	10	1
1,2 Propylenimine	10	1
Vinyl chloride	10	1
F002	100	10
K019	10	1
K020	10	1
K028	10	1
K029	10	1
K096	10	100

The availability of the data on which these adjusted RQs are based was announced in a supplement to the proposed rule published on April 11, 1988 (53 FR 11890). The RQ revisions for 15 of these 18 hazardous substances are based on consideration of new weight-of-evidence and potency studies, and revisions to the original potency calculations.[18] The revised RQ profiles for these 15 hazardous substances are available for inspection in the public docket for the March 16, 1987 NPRM. The docket is contained in Room M2427, U.S. EPA, 401 M Street, SW, Washington, DC 20460 (Docket Number 102 RQ–273C). An explanation of the reasons for the potency and weight-of-evidence changes and citations to the studies relied on by the Agency for these changes are provided in the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, available for inspection at the same location.

RQs for two of the hazardous substances listed in Table 1 (waste streams F002 and K096) have been revised for technical reasons. The Agency today is promulgating an adjusted RQ of 10 pounds for waste stream F002. Although a 100-pound RQ adjustment was proposed for F002 in the March 16, 1987 NPRM, the final RQ adjustment of 10 pounds is consistent with EPA's revised definition of waste stream F002. In a final rule promulgated on December 31, 1985, EPA broadened the definition of F002 to include (in addition to the wastes already listed as constituents of F002) "* * * all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more" of the substances listed in waste streams F001, F004, and F005 (50 FR 53319). In effect, the Agency provided in the December 31, 1985 rule that all substances listed as constituents of waste streams F001, F004, and F005 are included as constituents of waste stream F002 when they are components of these spent solvent mixtures.[19]

Carbon tetrachloride is explicitly listed under waste stream F001, and benzene and 2-nitropropane are explicitly listed under waste stream F005.[20] Thus, under the policy announced in the December 31, 1985 rule, these three hazardous substances are considered part of the definition of waste stream F002. In this final rule, the Agency is promulgating 10-pound adjusted RQs for carbon tetrachloride, benzene, and 2-nitropropane, as proposed in the March 16, 1987 NPRM. The adjusted RQ for these three substances (10 pounds), therefore, becomes the RQ for waste stream F002.

Although a 10-pound RQ adjustment was not proposed for waste stream F002 in the March 16, 1987 NPRM, 10-pound RQ adjustments were proposed for benzene, carbon tetrachloride, and 2-nitropropane. The public has had an opportunity to comment on the proposed RQ adjustments for these three constituents of waste stream F002, and on the RQ for F002 in the supplement to the proposed rule (53 FR 11890). No comments were received on the proposed 10-pound RQ for benzene and 2-nitropropane, and the comments received on carbon tetrachloride did not warrant a change in the proposed RQ (see Section II.C.2.e). EPA, therefore, is promulgating an adjusted RQ of 10 pounds for waste stream F002 in this final rule.

As a result of the December 31, 1985 final rule and the RQ adjustments for benzene, carbon tetrachloride, and 2-nitropropane in this final rule, the RQs for waste streams F001, F003, F004, and F005 must also be adjusted to 10 pounds. The RQ for waste stream F001 is promulgated at 10 pounds, as proposed, in this final rule. RQ adjustments for waste streams F003, F004, and F005 (100, 1000, and 100 pounds, respectively) were promulgated in previous RQ rulemakings (see 50 FR 13501, April 4, 1985, and 51 FR 34544, September 29, 1986). The RQs for these three waste streams will be adjusted to 10 pounds in a future rulemaking.

The RQ for waste stream K096 was erroneously proposed to be adjusted to 10 pounds in the March 16, 1987 NPRM. The lowest RQ of any of the hazardous constituents present in this waste stream is 100 pounds. Therefore, a 100-pound RQ adjustment for waste stream K096 is promulgated in this final rule.

The Agency has decided that available data support application of BHP to acrylonitrile, the remaining substance whose RQ has been revised independent of public comment. The RQ for acrylonitrile was proposed to be adjusted to 10 pounds based on potential carcinogenicity, but its RQ is being promulgated at 100 pounds in this rulemaking due to the application of BHP. Although comments were received on the original 10-pound proposed RQ for acrylonitrile in the March 16, 1987 NPRM, the comments did not address the BHP issue. The final RQ adjustment for acrylonitrile is discussed further in Section II.C.2.a of this preamble.

In addition to these 16 hazardous substances, there is one substance (3,3'-dimethoxybenzidine) for which the basis for the RQ, but not the RQ level, has changed from the proposed to the final rule for reasons independent of public comment.

Although BHP is applied in this rule to raise by one level the RQ for 3,3'-dimethoxybenzidine, the RQ for this substance remains at its proposed 100-pound level because its primary criteria RQ has been lowered from 100 pounds to 10 pounds based on a potency factor recalculation. After reviewing the studies concerning 3,3'-dimethoxybenzidine, EPA has decided that a different study should be used to estimate the potency for this hazardous substance, yielding a medium (10-pound RQ) rather than a low (100-pound RQ) hazard ranking, as proposed. However, 3,3'-dimethoxybenzidine meets the Agency's criteria for applying BHP. With the application of the secondary RQ adjustment criteria of BHP, the final RQ adjustment for this substance is raised one level from its primary criteria level of 10 pounds to 100 pounds.

[18] These 15 hazardous substances are: acetamide, N-9H-fluoren-2-yl; azaserine; benz[c]acridine; benzotrichloride; chrysene; 1,2-dibromo-3-chloropropane; p-dimethylaminoazobenzene; 3,3'-dimethylbenzidine; N-nitroso-N-ethylurea; 1,2-propylenimine; vinyl chloride; and waste streams K019, K020, K028, and K029.

[19] The change made by the December 31, 1985 rule to the definition of F002, as well as similar changes to the definitions of F001, F003, F004, and F005, allows EPA to regulate more comprehensively certain solvent mixtures. Previously, only high-concentration solvents before use (i.e., pure, technical grade, and practical grade) were covered. For a detailed discussion of the significance of this change and the scope of the revised definitions of waste streams F001, F002, F003, F004, and F005, see 50 FR 53315, December 31, 1985.

[20] Benzene and 2-nitropropane were added to waste stream F005 by a final rule published on February 25, 1986 (51 FR 6537). The February 25, 1986 rule also added 1,1,2-trichloroethane to F002 and 2-ethoxyethanol to F005, but these two substances are not discussed above because their proposed RQs (100 and 1000 pounds, respectively) do not affect the RQ for waste stream F002.

2. Responses to Comments on Proposed RQs for Specific Substances

a. Acrylonitrile. Two commenters stated that the proposed 10-pound RQ for acrylonitrile should be adjusted upward to 100 pounds, based on assertions that a 10-pound release of acrylonitrile would not result in a government response, and that more recent data on the potential carcinogenicity of acrylonitrile support a 100-pound RQ. The commenters also cited the standard of the Occupational Safety and Health Administration (OSHA) for worker exposure to acrylonitrile of two parts per million (ppm) on an eight-hour time-weighted average.

One of these commenters also argued that the 10-pound proposed RQ for acrylonitrile is contrary to law as interpreted by the U.S. Supreme Court. This commenter stated that the Court's decisions in *Industrial Union Department, AFL–CIO* v. *American Petroleum Institute*, 448 U.S. 607 (1980) (the Benzene case) and *American Textile Manufacturers* v. *Donovan*, 452 U.S. 490 (1981) (the Cotton Dust case) require that health and safety standards for toxic substances, including potential carcinogens, be designed to alleviate a truly significant risk of harm.

The decisions cited by the commenter are based on the Supreme Court's interpretation of the Occupational Safety and Health Act of 1970 (OSH Act) which requires OSHA to promulgate standards for toxic chemicals that reduce material health impairment to the extent feasible. These decisions do not apply to all Federal regulations that set standards for toxic chemicals. In requiring EPA to promulgate RQ adjustments for hazardous substances under section 102(a) of CERCLA, for example, Congress established a standard for toxic chemical regulations different from the OSHA standard. The CERCLA RQ standard requires EPA to establish a reporting trigger for each hazardous substance, the release of which may present a substantial danger to public health and welfare and the environment. Thus, RQs are relative rankings of the hazards associated with releases of hazardous substances, rather than determinations of absolute levels of risk or permanent health and safety standards (e.g., the OSHA standards). Thus, EPA is required to adjust RQs under the standards set by CERCLA and not those established by the OSH Act.

The Agency also disagrees with the commenter's position that the most recent data on acrylonitrile support a 100-pound RQ based on the primary RQ adjustment criterion of potential carcinogenicity. The commenter provided no support for this position nor for the assertion that a 10-pound release of acrylonitrile would not result in a government response. An RQ is merely a trigger for notification of a release to the OSC, who then decides whether a government response is necessary. The OSC may or may not decide that such a response is needed to protect public health and welfare and the environment from a release of acrylonitrile, depending on the circumstances of the release. As mentioned in Section II.B.2.a of this preamble and in the supplement to the proposed rule (53 FR 11891, April 11, 1988), however, EPA has decided that the data do support application of the secondary RQ adjustment criterion of BHP, resulting in a final RQ adjustment of 100 pounds for acrylonitrile. One commenter on the supplement to the proposed rule supported the 100-pound RQ adjustment for acrylonitrile as consistent with the Agency's BHP methodology and the degradation data on this hazardous substance.

b. Arsenic. One commenter stated that no direct evidence exists that arsenic compounds other than arsenic trioxide and potassium arsenite are carcinogenic. Therefore, according to this commenter, the proposal to treat all arsenic compounds as carcinogenic may be inappropriate.

In the literature on inorganic arsenic, positive tumor incidence is shown in several studies.[21] The Agency has determined that sufficient evidence exists to implicate arsenic and its inorganic compounds as known human carcinogens. Because arsenic is chemically convertible among the various forms, all inorganic forms of arsenic are of equal concern. Accordingly, ranking all hazardous substances containing arsenic on the basis of potential carcinogenicity is appropriate to protect human health and welfare and the environment.

c. Asbestos. One commenter stated that the proposed one-pound RQ for asbestos is "unrealistically low." The commenter argued that because a 24-hour period is used to determine whether an RQ or more had been released (see 50 FR 13463, April 4, 1985), it would be impossible to determine whether the RQ for asbestos had been exceeded under many circumstances. Moreover, the commenter argued, every asbestos cleanup effort, such as in schools or public buildings, would be subject to reporting if a one-pound RQ for asbestos were promulgated. Finally, the commenter claimed that quarry operations that encounter asbestos formations would be adversely affected by a one-pound RQ.

The Agency recognizes that the detection of a release of one pound or more of asbestos over a 24-hour period may be difficult, given asbestos' fibrous nature and the current state of detection technology. Qualified asbestos contractors conducting abatement activities in conformance with EPA regulations (see 52 FR 15875, April 30, 1987), however, should be able to avoid such releases. Therefore, the Agency does not agree with the assertion that response activities involving asbestos in schools or public buildings routinely will involve releases of asbestos in quantities that will require Federal notification. At the same time, if such releases of asbestos occur, the OSC should have the opportunity to determine whether a Federal response action may be required.

As stated in previous rulemakings, CERCLA itself does not impose any requirement to test for the release of a hazardous substance (see 50 FR 13463, April 4, 1985). Nevertheless, persons in charge should be aware that failure to test does not mean that there is no requirement to report if the person in charge knows that asbestos has been released in an amount equal to or greater than one pound.

Concerning the possible adverse effect of a one-pound RQ for asbestos on quarry operations, it should be noted that the Agency does not establish different RQs on the basis of different release circumstances. If "continuous" and "stable in quantity and rate," however, releases from quarry operations may qualify for reduced reporting under CERCLA section 103(f)(2) (for further discussion of these reduced reporting requirements, see 53 FR 12868, April 19, 1988).

It should be noted that the RQ for asbestos applies only to releases from friable asbestos-containing materials; releases from nonfriable materials are not subject to the reporting requirements of section 103 of CERCLA.

d. Bis(2-ethylhexyl)phthalate. One commenter stated that because bis(2-ethylhexyl)phthalate (DEHP) is nongenotoxic, its RQ should be based on criteria other than potential carcinogenicity. The commenter also suggested that if the RQ for DEHP is based on potential carcinogenicity, the linear model should not be used to estimate potency (i.e., the dose that would produce an excess risk of cancer)

[21] See Health Assessment Document for Inorganic Arsenic, Final Report, EPA 600/8–83–021F, March 1984.

because a threshold dose is required to cause cancer. The commenter supported these assertions by submitting the 1985 report of the Chronic Hazard Advisory Panel (CHAP) commissioned by the Consumer Product Safety Commission.

Whether or not a substance is genotoxic is considered by the Agency in establishing RQs. The evidence submitted by the commenter, however, does not establish conclusively the nongenotoxicity of DEHP. The CHAP report found that "[t]he evidence for tumor initiating activity is inadequate for conclusions to be drawn. Because oral administration of DEHP to rats and mice produces tumors by *some* mechanism, DEHP or its metabolites must be presumed to have both *initiating and promoting* activity" (emphasis added). Thus, the commenter's contention that DEHP is nongenotoxic is at odds with the report cited by the commenter. Moreover, DEHP has been shown conclusively to induce tumors in animals, acting either alone or as a synergist. Accordingly, the Agency has determined that the establishment of an RQ for DEHP on the basis of potential carcinogenicity is appropriate.

The Agency also disagrees with the contention that a linear model should not be applied in establishing the RQ for DEHP based on potential carcinogenicity. Since publication of the March 16, 1987 NPRM, EPA invited scientists from other Federal agencies to discuss interpretation of the potential carcinogenicity studies of DEHP. These government scientists all agreed that a linear model should be applied to DEHP.[22] Moreover, the Guidelines for Carcinogen Risk Assessment state that, "[w]hen data and information are limited * * * and when much uncertainty exists regarding the mechanism of carcinogenic action, models or procedures that incorporate low-dose linearity are preferred when compatible with the limited information." (51 FR 33992, September 24, 1986). Because the data on DEHP are limited and are consistent with a linear model, the application of such a model is appropriate, as provided in the Guidelines.

The commenter also stated that BHP should be applied to raise the RQ for DEHP above its primary criteria level of 100 pounds. As discussed above in Section II.B.2.a of this preamble, however, the Agency has decided not to apply BHP to adjust upward the RQs of potential carcinogens that are assigned primary criteria RQs of 100 pounds. Therefore, the RQ for DEHP will remain at 100 pounds, as proposed.

e. Carbon tetrachloride. One commenter objected to the proposed 10-pound RQ for carbon tetrachloride, arguing that it would result in a requirement to report a release of less than one gallon of this CERCLA hazardous substance. The commenter noted that EPA's risk estimate for exposure to potential carcinogens normally assumes a 70-year lifetime exposure, whereas the exposure to a 10-pound release of a volatile hazardous substance is acute rather than chronic. The commenter claimed that carbon tetrachloride is a low-potency animal carcinogen and poses "no risk to the public health" in amounts between one and 10 pounds.

EPA disagrees with the commenter that exposure to a hazardous substance resulting from episodic releases is acute rather than chronic, because one-time releases can result in chronic exposure through long-term contamination of environmental media such as ground water. In addition, although the commenter is correct that EPA's analysis assumes a 70-year lifetime exposure, the purpose of the analysis is to establish a relative ranking, not to assess absolute risk, as the commenter mistakenly implies. This analysis is performed in accordance with the Agency's Guidelines for Carcinogen Risk Assessment. Uniform application of these Guidelines is necessary to establish valid relative rankings for all potential carcinogens. After a re-examination of the Agency's analysis of carbon tetrachloride, EPA remains convinced that this hazardous substance was properly classified; therefore, the final RQ adjustment for carbon tetrachloride is being promulgated at 10 pounds, as proposed. Likewise, the final RQ adjustment for waste stream F002, which contains carbon tetrachloride as a constituent, is being promulgated today at 10 pounds (see Section II.C.1 of this preamble).

f. Chloroform. Three commenters stated that the proposed 10-pound RQ for chloroform would result in frequent and burdensome reporting of small releases of chloroform incidental to normal manufacturing operations. The commenters urged retention of the statutory 5000-pound RQ. One of these commenters stated that because millions of gallons of process wastewater are handled at bleached paper facilities in the course of their normal manufacturing operations, reportable quantities of chloroform would be released every day that such facilities are in operation.

Congress has provided for reduced reporting of releases of an RQ or more of a hazardous substance that are continuous and stable in quantity and rate. The commenter may wish to evaluate whether the releases of chloroform-containing wastewater qualify for this reduced reporting under CERCLA section 103(f)(2). If the releases meet the criteria set forth in that section (see Section I.A of this preamble for a summary of the criteria), the commenter need only report its releases annually or when there is a statistically significant increase in the amount released. A proposed rule published on April 19, 1988 (53 FR 12868) describes the reduced reporting requirements for continuous releases in greater detail.

The same commenter claimed that EPA data contained in Volume 3 of the Technical Background Document overstate the risks associated with chloroform because: (1) The Agency erroneously relied on a National Cancer Institute (NCI) mouse study where chloroform was administered through corn oil, despite data showing that corn oil alters absorption and metabolism of the test substance and acts independently as a tumor promoter; and (2) EPA used a 95-percent upper confidence limit generated by a linearized multi-stage model even though the weight of the evidence indicates that chloroform is not genotoxic and, therefore, nonlinearity should be used in modeling procedures.

The Agency acknowledges that data exist indicating that corn oil may enhance the tumor yield of specific chemical agents in certain cases. In this case, however, the increased tumor incidence in the chloroform-treated animals far exceeded any tumor-promoting effect that reasonably can be ascribed to corn oil. Furthermore, use of corn oil to administer chloroform may have a beneficial effect for predicting human responses, because the corn oil helps to spread the daily chloroform doses over a longer duration which more closely correlates with anticipated human exposure patterns. Accordingly, the Agency believes that it appropriately considered the NCI study noted above in assessing the potential carcinogenicity of chloroform.

The mechanism of chloroform carcinogenicity has not been determined conclusively. Likewise, there is insufficient evidence to conclude that chloroform is nongenotoxic. The Agency disagrees with the assertion that use of a linear model to predict the potency of chloroform is inappropriate for the same reasons stated above in the response to a similar comment regarding DEHP.

[22] U.S. EPA "Workshop on DEHP Risk Assessment," Bethesda, MD, April 19–20, 1988.

One commenter argued that chloroform "is extremely biodegradable" and, therefore, should receive a 100-pound RQ based on the application of BHP. The Agency, however, has not identified data on chloroform that support the commenter's assertion, nor did the commenter provide such data.

g. Chromium and chromium compounds. Several commenters objected to the Agency's classification of chromium metal and any form of chromium other than hexavalent chromium as a potential carcinogen. The commenters claimed that the Agency provided insufficient justification for its decision not to differentiate between hexavalent chromium compounds and other chromium compounds. The commenters also claimed that the Agency improperly failed to distinguish between potentially airborne forms of hexavalent chromium and other forms because the predominant evidence supporting the carcinogenicity of hexavalent chromium is based on inhalation studies. Commenters also questioned the potential for exposure to hexavalent chromium. For instance, commenters argued that EPA concluded in its own technical background document for chromium that hexavalent chromium (i.e., chromium (VI)) is readily reduced in the environment to trivalent chromium (i.e., chromium (III)).

The Agency agrees that the carcinogenic chromium (VI) is rapidly reduced to the more innocuous chromium (III) when exposed to the environment. Thus, as mentioned in Section II.B.2.a, the proposed one-pound RQ adjustment for chromium (VI) compounds has been raised to 10 pounds in this final rule based on the application of the secondary RQ adjustment criterion of BHP. This change affects the final RQs for 10 hexavalent chromium compounds,[23] seven waste streams that contain such compounds as constituents,[24] and unlisted hazardous wastes that are EP toxic by virtue of their chromium (VI) constituents, all of whose proposed one-pound RQs have been raised to 10 pounds in this final rule. EPA disagrees, however, with the commenter's suggestion that the Agency should distinguish between potential exposure to chromium (VI) compounds through air and through other media. EPA establishes a single RQ for each hazardous substance, regardless of the medium into which the substance is released.

After reviewing the comments and the technical basis for proposing a one-pound RQ adjustment for chromium metal, the Agency has determined that there is no evidence implicating chromium metal as a potential carcinogen. The Agency also has determined that chromium metal is biologically inert. Accordingly, the final RQ adjustment for chromium metal is being promulgated today at 5000 pounds.

h. Hexachlorobutadiene. One commenter stated that the proposed one-pound RQ for hexachlorobutadiene (HCBD) was inconsistent with the RQ profile document for this substance, which indicated an RQ of 100 pounds. The commenter stated that the RQs for HCBD and waste streams K016 and K030 (both of which contain HCBD) should also be adjusted to 100 pounds. The Agency disagrees that the RQ for HCBD should be 100 pounds. Although the RQ profile for HCBD does indicate a 100-pound RQ based on potential carcinogenicity, the aquatic toxicity data for HCBD support a one-pound RQ. The Agency therefore is promulgating final RQ adjustments of one pound for HCBD and waste streams K016 and K030 based on the lowest primary criteria RQ for these substances.

i. Lead and lead compounds. In the March 16, 1987 NPRM (52 FR 8140), EPA proposed 10-pound RQs for lead acetate and lead phosphate based on potential carcinogenicity. As discussed in a second NPRM published on March 2, 1988 (53 FR 6762), the Agency reproposed the RQs for these two substances from 10 pounds to 100 pounds based on additional evaluation of the carcinogenicity of lead metal and lead compounds by the Agency's Human Health Assessment Group, or HHAG (formerly the Carcinogen Assessment Group, or CAG). On November 30, 1988, EPA's Science Advisory Board (SAB) formally requested the opportunity to review the basis for the HHAG's determination that lead and lead compounds are potential carcinogens. EPA has decided to retain the statutory RQs for lead acetate and lead phosphate (5000 pounds and one pound, respectively) pending the completion of SAB review. Final RQ adjustments for these two substances, as well as the public comments on the proposed RQ adjustments for these substances, will be addressed in a future action.

RQ adjustments for three other hazardous substances—lead metal, lead stearate, and lead sulfide—also were proposed in the March 2, 1988 NPRM. SAB review of the potential carcinogenicity of lead and lead compounds may affect the RQ adjustments for these three substances as well as the RQ adjustments for lead acetate and lead phosphate. Therefore, the statutory RQ for lead metal (one pound), the current adjusted RQ for lead stearate (5000 pounds), and the current adjusted RQ for lead sulfide (5000 pounds) will remain in effect pending completion of SAB review (lead stearate and lead sulfide were assigned final RQ adjustments of 5000 pounds in the September 29, 1986 final rule). The final RQ adjustment for lead metal, the RQ readjustments for lead stearate and lead sulfide, and the public comments on the RQ adjustments for these three substances will be addressed in the future action mentioned above.

In addition, 11 waste streams (K002, K003, K005, K048, K049, K051, K061, K062, K069, K086, and K100) [25] may contain as constituents lead metal and the four lead compounds (lead acetate, lead phosphate, lead stearate, and lead sulfide) whose existing (i.e., statutory or final adjusted) RQs are being retained in this final rule. The existing RQs for two of these substances—lead metal and lead phosphate—are one pound. Because the RQ for a waste stream is the lowest RQ of any of its constituents, the one-pound existing RQs for lead metal and lead phosphate result in one-pound RQs for the 11 waste streams that may contain these substances as constituents. Thus, the Agency is retaining the one-pound statutory RQs for these 11 waste streams pending the completion of SAB review of the potential carcinogenicity of lead and lead compounds. Final RQ adjustments for these 11 waste streams will be addressed in the future action mentioned above.

j. Methyl chloride. One commenter objected to the proposed 100-pound RQ for methyl chloride on the basis of both ignitability and potential carcinogenicity. The commenter stated that there is no reasonable possibility that a release of 100 pounds of methyl chloride could create an ignitable condition because this substance diffuses rapidly. The commenter also stated that a Federal response to such a release would never be warranted.

The Agency disagrees. Although it is true that methyl chloride diffuses

[23] These 10 compounds are: ammonium bichromate, ammonium chromate, calcium chromate, chromic acid, lithium chromate, potassium bichromate, potassium chromate, sodium bichromate, sodium chromate, and strontium chromate.

[24] These seven waste streams are: waste streams F006, F019, K004, K006, K007, K008, and K050.

[25] Comments on the RQs proposed in the March 16, 1987 NPRM for three of these waste streams—K048, K049, and K051—are addressed in Section II.C.2.o of this preamble.

rapidly, as it dissipates it mixes with air, thus increasing the probability of ignition. The Agency also cannot agree that a release of less than 1000 pounds of methyl chloride would never warrant a Federal response. As stated earlier, the likelihood of such a response depends on the circumstances of a release. Accordingly, the Agency is promulgating a final RQ adjustment of 100 pounds for methyl chloride based on both ignitability and, as discussed below, potential carcinogenicity.

The commenter further stated that methyl chloride is nongenotoxic and, therefore, should be ranked for RQ adjustment based on criteria other than potential carcinogenicity. The data cited by the commenter as demonstrating that methyl chloride is not genotoxic, however, do not support the commenter's conclusion. Rather, the data indicate that methyl chloride is a weak genotoxicant that causes a degree of genetic damage. Moreover, methyl chloride has been shown conclusively to induce tumors in animals, acting either alone or as a synergist. Accordingly, the Agency has determined that promulgating an RQ for methyl chloride on the basis of potential carcinogenicity is appropriate.

The commenter also suggested that, if the RQ for methyl chloride is based on potential carcinogenicity, the linear model should not be applied because a minimum dose is required to cause cancer. The Agency disagrees with the argument that use of a linear model to predict the potency of methyl chloride is inappropriate for the same reasons stated above in the response to a similar comment regarding DEHP.

k. Nickel and nickel compounds. In the March 16, 1987 NPRM, the Agency proposed the following RQ adjustments from the statutory RQs for nickel metal and nickel compounds:

Substance	Statutory RQ	Proposed RQ
Nickel metal	1	1
Nickel ammonium sulfate	5000	100
Nickel carbonyl	1	10
Nickel chloride	5000	100
Nickel cyanide	1	10
Nickel hydroxide	1000	10
Nickel nitrate	5000	100
Nickel sulfate	5000	100

The Agency received no comments on the proposed RQ adjustments for nickel carbonyl and nickel cyanide but received several comments on the proposed RQ adjustments for nickel metal, nickel ammonium sulfate, nickel chloride, nickel nitrate, nickel sulfate, and nickel hydroxide. For the reasons that follow, the Agency is promulgating final RQ adjustments as proposed for all nickel compounds, but is raising the RQ adjustment for nickel metal from the proposed one-pound level to 100 pounds.

Several commenters asserted that the Agency erred in characterizing nickel metal as a potential carcinogen on the basis of epidemiological data from studies of nickel refinery dust because nickel metal, if present at all, is only a minor component of nickel refinery dust.

The proposed one-pound RQ for nickel metal was based on an epidemiological study of nickel refinery workers that indicated a weight-of-evidence Group A classification. The Agency agrees with the commenters that it would be inappropriate to base the RQ for nickel metal on this study because the carcinogenic effects observed can be attributed primarily to nickel compounds such as nickel subsulfide. Therefore, after reviewing its Health Assessment Document for nickel metal, EPA has decided to revise the weight-of-evidence classification of nickel metal from Group A to Group C based on limited animal evidence and inadequate human evidence of nickel metal's carcinogenicity. This change results in a 100-pound final RQ for nickel metal.[26]

In the March 16, 1987 NPRM, the Agency proposed to adjust the RQs of nickel ammonium sulfate, nickel chloride, nickel nitrate, and nickel sulfate to 100 pounds on the basis of potential carcinogenicity. These compounds are soluble nickel salts that contain nickel (II) ion, which has been implicated as a potential carcinogen on the basis of experimental data from studies of nickel acetate.

One commenter stated that the Agency improperly relied upon the nickel ion hypothesis as the basis for proposing RQ adjustments for these four nickel compounds. The commenter asserted that the hypothesis is speculative and that the data on the carcinogenicity of the nickel (II) ion relied upon by the Agency to establish its potential carcinogenicity are similar to data on the ions of other metals (e.g., copper, zinc, iron, manganese, cobalt, lead, and mercury) that were not implicated as potential carcinogens. Other commenters stated that no data exist directly implicating soluble nickel salts as potential carcinogens.

The Agency disagrees. Although not all soluble nickel salts have been tested for animal carcinogenicity, there is limited evidence to support the carcinogenicity of nickel acetate. EPA believes that the solubility of nickel compounds affects cellular uptake of the nickel ion, which in turn affects carcinogenesis because the nickel ion is believed to be the ultimate carcinogenic form of nickel, and because (as the commenter acknowledges) the nickel compounds whose RQs are adjusted in this rule all are relatively soluble. In addition, the solubilities of these nickel compounds are not necessarily compound-specific.[27] The Agency, therefore, believes that the evidence on nickel acetate supports the hypothesis that the nickel ion is carcinogenic, which in turn justifies the treatment of other soluble nickel compounds as potential carcinogens. The Agency believes that for nickel ammonium sulfate, nickel chloride, nickel nitrate, and nickel sulfate (all soluble nickel salts), there is "limited" evidence of animal carcinogenicity and "inadequate" evidence of human carcinogenicity; these hazardous substances are therefore placed in weight-of-evidence Group C. Because there are no data on which to base potency calculations, they are classified as potency Group 2, providing a hazard ranking of "low." Thus, the RQs of these soluble nickel salts, based on potential carcinogenicity (as well as chronic toxicity), are adjusted to 100 pounds in this rule.

In the March 16, 1987 NPRM, the Agency proposed a 10-pound RQ for nickel hydroxide, a nickel compound that is only slightly water soluble, on the basis of chronic toxicity. There are no chronic toxicity data on this substance; thus, the Agency relied on an analogous substance to adjust the statutory one-pound RQ. The surrogate substance chosen was nickel subsulfide, which is slightly less water-soluble than nickel hydroxide. One commenter indicated that the solubility of substances in water is not necessarily analogous to the solubility of substances in body fluids, and that it is the solubility of a compound in biological fluids, not in water, that affects absorption of a compound. The Agency agrees. In the absence of data to the contrary (which is the case here), however, the Agency's policy is to use the closest possible analogy. The Agency, therefore, is basing the 10-pound final RQ adjustment for nickel hydroxide on data from studies of nickel subsulfide.

[26] This final RQ for nickel metal, which is based on potential carcinogenicity, is subject to change pending the Agency's analysis of the most recent ignitability data for this hazardous substance.

[27] This is in contrast to insoluble nickel compounds, for which the Agency believes that carcinogenicity and other forms of toxicity are compound-specific.

l. Polychlorinated biphenyls. In the March 16, 1987 NPRM, EPA proposed to lower the statutory 10-pound RQ for polychlorinated biphenyls (PCBs) to one pound, based on aquatic toxicity (see 52 FR 8147). Several commenters objected to the proposed one-pound RQ adjustment for PCBs on both technical and policy grounds.

Several commenters suggested that a one-pound RQ for PCBs is inconsistent with other EPA regulations and policies. For instance, commenters argued that a one-pound RQ is duplicative of requirements under the Toxic Substances Control Act (TSCA) for reporting of spills of PCBs in amounts greater than 50 ppm (see 40 CFR 761). These commenters stated that a one-pound RQ for PCBs would increase significantly the reporting burden without promoting the Agency's goal of environmental protection. The commenters further claimed that in the PCB regulations under TSCA, the Agency has acknowledged that the normal operation of PCB-containing electrical equipment (which includes routine leaks) does not present an unreasonable risk to human health or the environment.

Reporting of PCB releases under both CERCLA and TSCA is not duplicative because the cleanup authority under the two statutory schemes is different: CERCLA reporting authorizes and ensures timely cleanup of releases by or under the supervision of the Federal government, whereas no explicit Federal cleanup authority exists under TSCA.[28] Furthermore, reporting under both CERCLA and TSCA is required very rarely and only with respect to the most serious releases. Under TSCA, spills of more than 10 pounds of *PCB-containing material* must be reported to the appropriate EPA Regional Administrator (40 CFR 761.125). This reporting requirement is limited to spills of material containing PCBs at concentrations of 50 ppm or greater. Under CERCLA, a release of one pound or more of *pure PCBs* must be reported to the National Response Center. For CERCLA notification purposes, the CWA mixture rule may be applied. Thus, for example, a release of 15 pounds of transformer fluid known to contain 50 ppm PCBs is generally reportable under TSCA but not under CERCLA. In order for a release of transformer fluid containing PCBs at a concentration of 50 ppm to be reportable under CERCLA, assuming a one-pound RQ for PCBs, the release generally would have to be equal to or greater than 20,000 pounds. Under these extreme circumstances, the Agency does not view a requirement to notify both the National Response Center and the appropriate EPA Regional Administrator as an undue burden.

It is true that, when the concentration of PCBs is unknown, TSCA (as well as CERCLA) requires that a substance be treated as pure PCBs. However, EPA believes that in most cases users of PCB-containing equipment are aware of its PCB concentration levels. Because the use of PCB-containing electrical equipment is authorized only when such equipment contains certain specified concentrations of PCBs (see 40 CFR 761.30), users of such equipment must know its PCB concentrations in order to avail themselves of exemptions from the ban against the use of PCBs (see TSCA section 6(e)) that would otherwise apply. Thus, owners or operators of PCB-containing equipment should have the information necessary to apply the CWA mixture rule when determining whether a release of PCBs requires reporting under CERCLA. Because most PCB-containing equipment contains PCBs in concentrations much lower than 100 percent, the Agency believes that a one-pound RQ for PCBs will not result in a significant overlap in reporting under CERCLA and TSCA.

In addition, EPA does not believe that its decision to permit the use of PCB-containing equipment that leaks under normal operating conditions, if the concentration of PCBs is 50 ppm or less, is equivalent to a determination that PCBs do not pose a hazard to human health and welfare and the environment. The regulations promulgated under TSCA balance the need to minimize exposure to PCBs with the costs of removing PCB-containing equipment from service. Although it is true that these regulations (40 CFR 761.30(e)) authorize the use of PCBs in hydraulic systems, such authorization is limited to equipment containing PCBs in concentrations of 50 ppm or less and includes strict handling requirements. Under no circumstances does EPA allow the use of equipment that leaks under normal operating conditions if the equipment contains more than 50 ppm PCBs.

For the reasons discussed above, the Agency has determined that the serious hazards that PCBs pose to human health, welfare, and the environment warrant the one-pound reporting requirement established by this rule.

Several commenters argued that, because PCBs rarely are released directly into surface water, aquatic toxicity is an inappropriate basis for establishing the RQ for PCBs. Moreover, according to these commenters, should such releases occur, there is little chance that PCB concentrations in natural aquatic systems would ever approach levels that are found in the laboratory to be acutely toxic to fish, because of the adsorption of PCBs to sediments and organic matter. Alternatively, commenters suggested that the Agency consider establishing one RQ for releases of PCBs into surface water and a higher RQ for other releases of PCBs.

The Agency disagrees with the assertion that, because releases of PCBs into surface water are rare, the RQ for PCBs should be based on criteria other than aquatic toxicity. Even if most PCB releases occur on land, releases of PCBs into surface water also occur. In addition, PCB releases onto land often are mobilized by surface runoff and flow into water bodies. Such releases also can be carried into ground water and eventually reach sources of drinking water. Moreover, RQs are not intended to reflect the most likely release scenario or the degree of hazard associated with a particular release. Rather, RQ levels serve as threshold levels of notification that, once exceeded, enable the Federal government to determine whether a response is warranted.

The Agency also disagrees with the argument that one RQ should be established for releases of PCBs into surface water and another RQ for releases of PCBs into other media. A single RQ for PCBs will provide a relatively simple reporting system that does not unduly burden either EPA or the regulated community. It should be noted that CERCLA section 102(a) expressly authorizes the Agency to establish a single RQ for each hazardous substance. The legislative history cites simplicity and administrative convenience as reasons why this approach is preferred.[29] Moreover, the Agency lacks the resources necessary to obtain the vast quantity of technical data that would be required to tailor RQs to each release situation and, at the same time, to ensure that RQs are consistent, equitable, and sufficiently protective of human health and welfare and the environment.

[28] The Agency's PCB spill cleanup policy under TSCA, however, provides that Agency-imposed penalties can be avoided if a spill is cleaned up in accordance with the standards set in the policy (see 40 CFR 761.125).

[29] See Senate Report No. 848, 96th Congress, 2d Session 29 (1980).

EPA also disagrees with the statement that concentrations of PCBs lethal to fish achieved in a laboratory setting cannot occur in the environment. One study used by the Agency to establish the RQ for PCBs used raw Lake Superior water. This study therefore duplicated a naturally-occurring environment in the laboratory, including the presence of suspended solids, and still produced toxicity values supporting a one-pound RQ for PCBs.[30]

The Agency further believes that the commenters' statements regarding the low water solubility of PCBs and the mitigating effects of adsorption to organic matter and sediments do not invalidate the proposed one-pound RQ. EPA agrees with the commenters that PCBs may adsorb to the surface of organic and inorganic particles. The literature clearly shows that PCBs are strongly adsorbed to certain solid surfaces, including glass and metal surfaces in laboratory apparatus and soils, sediments, and particulates in the environment. PCBs' properties of low water solubility and adsorption do not affect toxicity, however, because it is likely that stable emulsions of PCBs (i.e., stable suspensions of finely dispersed PCBs in water) are created in the environment through the action of naturally occurring emulsifiers (i.e., organic sediments). Such emulsions may be just as threatening to aquatic life forms as PCBs in true solution. Because stable emulsions of PCBs at concentrations that are lethal to newly-hatched fish have been created in the laboratory without emulsifiers, it is likely that such emulsions could form in the environment where natural emulsifiers are present.

Several commenters objected to the studies cited by the Agency in support of the proposed one-pound RQ for PCBs, claiming that they were poorly designed and that they overestimate toxicity because they use acetone, which contributes to toxicity, as a carrier solvent. Commenters cited an aquatic toxicity study to show that when acetone is employed as a carrier for PCBs, it has a confounding effect on efforts to interpret the results from studies of PCB toxicity.[31] The primary purpose of the study cited by the commenters, however, was to determine how the presence of acetone affects the growth and uptake of PCBs by lake trout, rather than how acetone might influence the toxicity of PCBs. The investigators concluded that statistical analyses revealed no significant differences in mortality in the following four treatment groups: (1) A control group; (2) a group that received acetone only; (3) a group that received acetone and PCBs; and (4) a group that received only PCBs.

Because this study found no difference in mortality between groups of fish exposed to PCBs dissolved in acetone and fish exposed to PCBs alone, and because there are data that support the proposed one-pound RQ for PCBs that were derived without using acetone or any other solvent as a carrier,[32] the data the Agency used to assign a one-pound RQ for PCBs are not invalidated by the commenters' argument regarding the use of acetone as a carrier solvent in studies of the aquatic toxicity of PCBs.

One commenter asserted that inadequate data were provided in the studies regarding the actual concentrations of PCBs used in the testing and that the reported concentrations appear to be the result of a single analysis. The Agency disagrees that the data were inadequate. In fact, in the studies, duplicate samples for each test concentration were collected and then analyzed for their PCB concentrations.

Several commenters asserted that most data on aquatic toxicity support a 10-pound RQ for PCBs. The reason that the greater quantity of data, viewed in isolation, appears to support a 10-pound RQ is that more tests have been performed on life stages of fish that are less susceptible to the toxic effects of PCBs than on life stages that are more sensitive. Indeed, *all* of the data from tests performed on newly-hatched fish support a one-pound RQ.

Several commenters disputed the Agency's reliance on data from tests using early life stages because these stages represent a relatively small portion of a fish's life. Commenters claimed that the Agency incorrectly applied EPA's 1985 National Water Quality Guidelines by using the most sensitive life stage when adjusting the RQ for PCBs. The commenters stated that the Guidelines only require data concerning effects on the most resistant life stage (in this case adult fish) to be rejected when the effects differ by a factor of two or more from effects on the most sensitive life stage (juvenile fish), and that this does not appear to be the case with PCBs.

EPA disagrees with the argument that the RQ for PCBs should not be based on the most sensitive life stage of fish. From the standpoint of population survival, the individuals of greatest value are those that have not yet reached reproductive maturity and those that are capable of reproducing. Individuals no longer capable of reproducing do not significantly influence the survival of the species or the local population. On the other hand, early life stage individuals will mature into reproductive adults and produce new generations. Therefore, protection of the juvenile life stages of fish is of critical importance to the environment.

Moreover, in the Guidelines, EPA states the circumstances under which data from tests using the most resistant life stages should *not* be used. The Guidelines allow the use of data from tests using the least resistant life stage even when such data differ by less than a factor of two from other data on the same species. In fact, in the Guidelines, the Agency encourages the use of data from tests using sensitive species and sensitive life stages (see the Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses, pp. 24 and 29, NTIS Document #PB85–227049, January 1985). In addition, the acute aquatic toxicity literature on PCBs does, in fact, contain at least one study that meets the Guidelines' criteria for rejecting the most resistant life-stage data (i.e., the data indicate that toxicity values are two times greater for the most sensitive life stage than for the most resistant).[33]

One commenter argued that it is inappropriate to base the RQ for PCBs, in part, on the fact that PCBs are bioaccumulative insoluble sinkers. This commenter also stated that recent data indicate that PCBs are dechlorinated in sediments by anaerobic bacteria, rendering them less hazardous. Another commenter argued that not only is the proposed downward RQ adjustment for PCBs inappropriate on the basis that PCBs are bioaccumulative insoluble sinkers, but these properties actually make releases of PCBs *less* hazardous. This commenter's statement is premised upon the claimed tendency of bioaccumulative insoluble sinkers "to adsorb to particulates and sediments, * * * [to] have low bioavailability to organisms from the dissolved phase, and * * * [to] remain with the sediments, even if spilled as pure compounds." Therefore, according to this commenter, "the fact that PCBs are insoluble sinkers

[30] See Nebeker et al., 1974. Effect of Polychlorinated Biphenyl Compounds on Survival and Reproduction of the Fathead Minnow and Flagfish. *Trans. Am. Fish. Soc.* 103:562.

[31] See Mac, M.J. et al., 1981. Potential Influence of Acetone in Aquatic Biosassays Testing the Dynamics and Effects of PCBs. *Bull. Env. Contam. Toxicol.* 27:359.

[32] Birge, W.J. et al., 1979. Toxicity of Organic Chemicals to Embryo-Larval Stages of Fish, Ecological Research Service, EPA 560/11–79–007.

[33] Ibid.

acts as a *protective mechanism* compared to chemicals that are more soluble in water" (emphasis in original). Furthermore, the commenter argued, the tendency of PCBs to bioaccumulate also results from the fact that PCBs generally are metabolized relatively slowly. Therefore, bioaccumulation per se does not represent an adverse health effect and is not predictive of adverse health effects on aquatic organisms.

The Agency disagrees. An insoluble chemical that sinks in water (such as PCBs) can accumulate in a way that slowly contaminates the surrounding water, perhaps over a period of years. Therefore, a release of PCBs that is not remedied could cause gradual long-term environmental damage. The dechlorination data cited by the commenter and mentioned above provide no information concerning the rate at which dechlorination of PCBs occurs in the environment. In the absence of data indicating that PCBs degrade at a rate sufficient to meet the criteria for application of BHP, the Agency will not apply BHP to raise the RQ for PCBs. The degree of hazard posed by the bioaccumulation of PCBs contributed to the Agency's decision to rely on data from studies of early life stages, in accordance with the Agency's 1985 National Water Quality Guidelines mentioned above. The primary basis for the RQ of PCBs, however, is toxicity to aquatic organisms. For these reasons, the Agency does not agree with the commenter that the physical properties of PCBs will serve to protect the environment in all release circumstances.

None of the public comments received on the proposed one-pound RQ adjustment for PCBs warrants a different final RQ adjustment. Accordingly, the Agency is promulgating a final adjusted RQ of one pound for PCBs in this rule.

m. Trichloroethylene. Two commenters stated that EPA's classification of trichloroethylene as a potential carcinogen is contrary to the findings of the Agency's Science Advisory Board (SAB) that the bioassay data for this substance constitute only limited evidence of animal carcinogenicity and are inadequate for the evaluation of human cancer risk.

In March 1988, the SAB, commenting on EPA's 1987 risk-assessment for trichloroethylene, stated that the weight of evidence for male mouse hepatocellular carcinoma indicates a range between Group C and Group B2.

In the Technical Background Document for the March 16, 1987 NPRM (Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 3, December 1986), EPA noted that trichloroethylene was classified as a weight-of-evidence Group B2 substance because of "sufficient" evidence of carcinogenicity from animal studies. Because of its Group 3 potency ranking, trichloroethylene received a low hazard ranking and a 100-pound proposed RQ. The Agency's most recent draft updated assessment for trichloroethylene (June 1987) provides additional support for a Group B2 classification. This B2 classification is consistent with the SAB's finding that the weight of evidence for trichloroethylene indicates a range between Group C and Group B2. However, it is important to note that EPA's classification for trichloroethylene is based on a draft carcinogenicity assessment that has not yet been finalized. If this classification changes based on the final assessment, and the change warrants an adjustment of the RQ for trichloroethylene, the RQ will be adjusted in a future rulemaking. Pending the results of EPA's final carcinogenicity assessment, a 100-pound RQ for trichloroethylene is promulgated in this rule based on a weight-of-evidence Group B2, potency Group 3 determination.

n. Vinyl chloride. The 10-pound RQ for vinyl chloride originally proposed in the March 16, 1987 NPRM was revised to one pound in a supplement to the proposed rule published on April 11, 1988 (53 FR 11890). One commenter on the supplement to the proposed rule suggested that EPA promulgate a 10-pound rather than a one-pound RQ for vinyl chloride because the epidemiological studies that support the one-pound RQ used "extremely high concentrations" of vinyl chloride. The commenter also noted that since the studies were performed, workplace exposure to vinyl chloride has been lowered substantially. The commenter further claimed that the lower one-pound reporting trigger is unjustified because plant personnel who should be free to clean up small releases of vinyl chloride will instead be required to spend time discussing these releases on the telephone.

EPA disagrees with the commenter on each of these points. Vinyl chloride has been shown to produce a significantly increased incidence of brain, lung, liver, and kidney tumors in studies of three different animal species. Similar carcinogenic effects have been observed in epidemiological studies of workers exposed to vinyl chloride. Although evidence of the carcinogenic effect of vinyl chloride in humans has come from studies of workers exposed to high doses of vinyl chloride, there is no evidence of an exposure level below which no increased risk of cancer would occur in humans.[34] Thus, neither the high doses during the period over which these epidemiological studies were performed nor any subsequent reduction in these doses negates the positive carcinogenic effects of vinyl chloride. EPA also disagrees with the commenter's suggestion that the requirement to notify the National Response Center by telephone of a release of vinyl chloride in an amount equal to or greater than one pound interferes with any efforts the person in charge may make to prevent a further release. EPA encourages plant personnel to take any appropriate measures to minimize releases of hazardous substances. While skilled personnel are working to stop a release, the management of the organization may designate any other employee to communicate information about the release to the National Response Center. As a practical matter, then, the obligation to make a telephone report of the release of an RQ or more of a hazardous substance should not divert resources from cleaning up an existing release or preventing a further release.

o. Waste streams. One commenter stated that an error was made in the Agency's derivation of RQs for the pentachlorophenol-containing waste streams F021, F027, and F028, because the Agency wrongly indicated that 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) is present in these waste streams. The commenter stated that this dioxin isomer does not occur in the production of pentachlorophenol and, therefore, would not be present in these waste streams.

The Agency disagrees. Although studies analyzed by the Agency do not indicate that 2,3,7,8-TCDD is contained in waste stream F021, isomers of a closely related substance, hexachlorodibenzo-p-dioxin, are hazardous constituents of this waste stream as set forth in Appendix VII of 40 CFR 261. The Agency has determined that when there are hazardous constituents of a RCRA waste stream that are not CERCLA hazardous substances, an RQ should be developed for these constituents in order to assign an appropriate RQ to the waste stream (see 48 FR 23565, May 25, 1983). In other words, the Agency derives the RQ for waste streams based upon the lowest RQ of all of the hazardous constituents,

[34] IARC Monograph on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, 1979, Volume 19, pp. 377–437, cited in the Fourth Annual NTP Report (1985).

regardless of whether they are CERCLA hazardous substances. The "reference RQ" developed for non-CERCLA substances is for ranking purposes only; no releases of such substances need to be reported to the National Response Center. Isomers of hexachlorodibenzo-p-dioxin would have an RQ of one pound based on their mammalian toxicity. Accordingly, the RQ of waste stream F021 is adjusted to one pound in this final rule.

Waste stream F027 and waste stream F028 contain 2,3,7,8-TCDD as well as hexachlorodibenzo-p-dioxins and tetrachlorodibenzofurans. The latter substance is not a CERCLA hazardous substance but is assigned a reference RQ of one pound as a means of assigning an RQ to these waste streams. Accordingly, even if 2,3,7,8-TCDD were not present in any particular waste identified as F027 or F028, the RQ for the waste streams would still be one pound based on one or more other hazardous constituents present in the waste.

One commenter disputed the Agency's proposal to assign an adjusted RQ of one pound to waste streams K016 and K030. Relying on the potential carcinogenicity profile for hexachlorobutadiene (a constituent of these waste streams), the commenter stated that the "low" hazard ranking for this substance corresponds to an RQ of 100 pounds. Therefore, the commenter suggested, the RQ of these waste streams should be adjusted to 100 pounds.

The Agency disagrees. The RQ for hexachlorobutadiene is based on aquatic toxicity data that support a one-pound RQ. Because hexachlorobutadiene has the lowest RQ of all the constituents in these waste streams, the adjusted RQs for waste streams K016 and K030 are being promulgated today at one pound.

Another commenter stated that the proposed one-pound RQs for waste streams K048, K049, K050, and K051 are unnecessarily low, because a release of 2000 pounds of these waste streams would have to occur before the RQ of one pound for chromium (VI) or lead metal (the constituents on which the RQs for these waste streams are based, according to the commenter) would be exceeded. The commenter suggested that EPA establish an RQ of 1000 pounds for these four waste streams. The Agency disagrees with the suggestion that the proposed one-pound RQs for these waste streams should be raised to 1000 pounds.

With respect to waste stream K050, the commenter is mistaken that the RQ is partially based on the RQ for lead metal: the Agency has determined that waste stream K050 does not contain lead metal or lead compounds. Rather, the RQ for this waste stream is based solely on the RQ for chromium (VI) compounds. Because the RQ for chromium (VI) compounds is being raised from the proposed one-pound level to 10 pounds in this final rule (see Section II.B.2.a of this preamble), the RQ for waste stream K050 also is promulgated at 10 pounds. Following the CWA mixture rule, if the concentration of chromium (VI) compounds in this waste stream is known, reporting is required when a quantity of 10 pounds or more of chromium (VI) compounds is released. In the absence of such knowledge, reporting is required when an RQ (10 pounds) or more of waste stream K050 is released.

With respect to waste streams K048, K049, and K051, EPA disagrees that the proposed RQs for these waste streams were based on the RQs for lead metal and lead compounds. Rather, the RQs for these waste streams were proposed at one pound in the March 16, 1987 NPRM based on the proposed one-pound RQ for chromium (VI) compounds. As explained in Section II.B.2.a of this preamble, the final RQ for chromium (VI) compounds has been adjusted upward one level to 10 pounds based on the application of BHP.

Also, as explained in Section II.C.2.i of this preamble, EPA has decided since publication of the March 16, 1987 NPRM to retain the current adjusted RQs for lead stearate and lead sulfide (5000 pounds) and the statutory RQs for lead metal (one pound), lead phosphate (one pound), and lead acetate (5000 pounds). Therefore, the Agency has decided to retain the statutory one-pound RQs for waste streams K048, K049, and K051 along with the other eight waste streams that contain lead metal or lead compounds.[35]

Of course, if the concentrations of the constituents of the waste stream are known, the CWA mixture rule may be applied. The commenter has stated that 2000 pounds of waste streams K048, K049, and K051 would have to be released before an RQ of chromium (VI) compounds is reached. Thus, the commenter apparently knows the concentrations of chromium (VI) compounds in these waste streams. If the concentrations of the constituents of a waste stream are known, reporting is required only when an RQ (e.g., 10 pounds for chromium (VI) compounds) or more of one of these constituents is released. If the concentrations of the constituents are not known, reporting is required when an RQ or more of the waste stream is released (one pound for waste streams K048, K049, and K051).

One commenter believed that the 10-pound RQ for waste stream F002 proposed in the April 11, 1988 supplement (see 53 FR 11890 and the discussion in Section II.C.1 above) represents an incorrect interpretation of EPA's December 31, 1985 final rule (50 FR 53315). The commenter stated that the Agency had rejected the approach of consolidating waste streams F001, F002, F004, and F005 into a single listing in that rule.

EPA disagrees that the Agency's interpretation of the reporting requirements for waste stream F002 discussed in the April 11, 1988 supplement (and summarized in Section III.C.1 above) is incorrect. On April 30, 1985 (50 FR 18378), EPA proposed to delete waste streams F002 through F005 and to modify waste stream F001 to include all hazardous constituents previously listed under waste streams F001 through F005. The purposes of this proposed action were to simplify recordkeeping and avoid confusion regarding the appropriate waste number to use for reporting solvent mixtures containing several listed solvents.

Commenters on the April 30, 1985 proposed rule indicated that the proposed change would increase compliance costs and cause confusion in recordkeeping. As a result, the Agency retained the original listings for waste streams F001–F005, but modified their definitions to include mixtures containing, before use, one or more of the solvents listed under the other waste numbers.

When assigning an RQ to a waste stream, the Agency considers the RQ of the constituents of the waste stream (48 FR 23565, May 25, 1983). The Agency determines the RQ of each waste stream constituent and assigns the lowest of these to the waste stream itself. Because, by virtue of the December 31, 1985 final rule, the definitions of waste streams F001–F005 now include mixtures of solvents that contain one or more solvents listed under the other waste numbers, the Agency must consider the RQs of these other solvents when determining the RQs for waste streams. To determine the appropriate RQ for waste stream F002, the Agency considers not only RQs of the solvents listed under F002, but also the RQs of those solvents listed under waste streams F001, F004, and F005. Because waste streams F001 and F005 contain solvents that have 10-pound RQs, the RQ for waste stream F002 is 10 pounds.

[35] These eight waste streams are: K002, K003, K005, K061, K062, K069, K086, and K100.

If the concentrations of the hazardous constituents of waste stream F002 are unknown, reporting is required when 10 pounds or more of F002 is released. If the concentrations of all of the constituents are known, reporting is required only when an RQ or more of one of the individual constituents is released.

The commenter further suggested that when a waste contains constituents listed under more than one waste stream, the waste has "dual listing status." The commenter used as an example of a spent solvent containing five percent benzene and five percent chlorobenzene. The commenter claimed that such a waste "would have both F005 and F002 listing status," and therefore would have an RQ of 10 pounds. The Agency agrees that the waste described by the commenter would have a 10-pound RQ, but disagrees with the commenter's reasoning. First, a single waste cannot be listed under more than one waste number (e.g., F002 and F005). If the person in charge knows the concentrations of two constituents in a waste, as in the example provided, the CWA mixture rule should be applied to determine the appropriate RQ. Because benzene has a 10-pound final RQ and chlorobenzene has a 100-pound final RQ, reporting is required when 10 pounds or more of benzene or 100 pounds or more of chlorobenzene is released.

After promulgation of this final rule, the RQs for the five mixed solvent waste streams will be: F001—10 pounds, F002—10 pounds, F003—100 pounds, F004—1000 pounds, and F005—100 pounds. As described above in Section III.C.1, the Agency intends to adjust RQs for waste streams F003, F004, and F005 to 10 pounds in a future rulemaking. When 10-pound RQs are promulgated for all of these waste streams, releases of mixtures of any of the solvent constituents will be required at or above the 10-pound level when the concentrations of the solvents are unknown.

D. Update on Methyl Isocyanate.

EPA initially proposed to adjust the statutory one-pound RQ for methyl isocyanate (MIC) to 100 pounds in the May 25, 1983 NPRM. After the December 3, 1984 release of MIC in Bhopal, India and the resultant loss of human life, EPA withdrew this proposed RQ adjustment in the April 4, 1985 final rule (50 FR 13456) and retained the statutory one-pound RQ, pending further analysis of the data on MIC.

In a March 2, 1988 proposed rule (53 FR 6765), the Agency announced that it had obtained additional toxicological data on MIC, including new animal studies documented in *Environmental Health Perspectives*, Volume 72, and that it was awaiting human toxicological and epidemiological data associated with the release of MIC in Bhopal. The Agency stated in the March 2, 1988 NPRM that it has decided to retain the statutory one-pound RQ for MIC pending completion of this analysis, rather than propose an RQ adjustment without first completing a thorough evaluation of the human toxicity data.

III. RQ Ajustments Under CWA Section 311

In the April 4, 1985 final rule (50 FR 13456), EPA amended 40 CFR 117.3 to make RQs adjusted under CERCLA the applicable RQs for notification of discharges of hazardous substances pursuant to CWA section 311. Thus, the RQ adjustments contained in this rulemaking apply to both CERCLA and CWA section 311 RQs. Of the 187 individual hazardous substances in this rulemaking, 67 were originally listed as hazardous substances and assigned RQs under section 311 of the CWA. The final RQ adjustments promulgated today lower the statutory CWA RQs of 52 of these substances, raise the statutory RQs of two of the substances, and leave the RQs of 13 of the substances at the statutory level. RQs under both CERCLA and the CWA are set forth in Table 302.4. Where there is a release of a hazardous substance into navigable waters, a single report to the National Response Center by the person in charge will satisfy the notification requirements of both statutes. For further discussion of the relationship between CERCLA RQs and CWA section 311 RQs, see the preambles to the May 25, 1983 proposed rule (48 FR 23569) and the April 4, 1985 final rule (50 FR 13473).

IV. Delisting of Ammonium Thiosulfate as a Hazardous Substance

On March 7, 1986, Kerley Industries, Inc. filed a petition requesting the Agency to delist ammonium thiosulfate as a hazardous substance under section 311 of the CWA, and, as a result, also under section 101(14) of CERCLA. Kerley Industries stated that the classification of ammonium thiosulfate as a hazardous substance under the CWA was based on aquatic toxicity by inference from an inappropriate reference compound, ammonium sulfite. Kerley further claimed that the toxicological test data on other more closely related alkali metal thiosulfate salts indicate that the thiosulfate chemical family is physiologically innocuous.

Based on the available information, the Agency in the March 2, 1988 NPRM (see 53 FR 6766) determined that ammonium thiosulfate does not meet the listing criteria for aquatic toxicity, and, therefore, proposed to delist ammonium thiosulfate as a hazardous substance under section 311 of the CWA, 40 CFR 116.4, and 40 CFR 117.3. As a result of the delisting under section 311, the substance would be a "hazardous substance" under section 101(14) of CERCLA only by virtue of its designation under section 102 of CERCLA (section 101(14)(B)). In the March 2, 1988 NPRM, EPA solicited public comments with supporting data on whether ammonium thiosulfate should be delisted as a hazardous substance under the CWA and CERCLA.

All of the commenters who addressed the ammonium thiosulfate issue supported EPA's proposed delisting of ammonium thiosulfate as a hazardous substance. Five commenters stated that the current classification of ammonium thiosulfate as a hazardous substance has resulted in increased insurance costs to transport this substance. Four commenters suggested that toxicological data derived from tests conducted on ammonium thiosulfate demonstrate that the LC_{50} for the substance is well above the 500 mg/l for aquatic toxicity—the threshold listing criterion under the CWA. EPA agrees with the commenters that ammonium thiosulfate does not meet the listing criteria for aquatic toxicity. In addition, the Agency has analyzed ammonium thiosulfate under the primary criteria other than aquatic toxicity and determined that there is no independent basis for listing this substance as hazardous under CERCLA section 102. Therefore, EPA is revoking in this rule its listing of ammonium thiosulfate under CWA section 311, 40 CFR 116.4, and 40 CFR 117.3 and its designation as a CERCLA hazardous substance under section 102(a) of CERCLA and 40 CFR 302.4(a).

V. Replacement of the Registered Trademark, "Kelthane," With the Generic Name, Dicofol

In response to a July 28, 1987 petition from Rohm and Haas Company, EPA today is changing the registered trademark, "Kelthane," to the generic name, dicofol in Table 116.4 of 40 CFR Part 116, Table 117.3 of 40 CFR Part 117, and Table 302.4 of 40 CFR Part 302. The term Kelthane is on these lists because it originally was listed as a hazardous substance under section 311 of the CWA. Kelthane has been assigned a final adjusted RQ of 10 pounds (50 FR

13489, April 4, 1985). The Agency believes that listing this hazardous substance by its generic or chemical name is appropriate because there are companies other than Rohm and Haas that manufacture or generate dicofol. This listing by generic name (dicofol) should reduce the likelihood that Rohm and Haas would be considered liable under section 107(a) of CERCLA for releases of this hazardous substance into the environment for which it is not responsible.

VI. List of Hazardous Substances and Adjusted RQs

The following table lists the RQ adjustments for the hazardous substances whose RQs are being adjusted in this final rule.

TABLE 2.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

Hazardous Substance	CASRN	Final RQ Pounds (Kg)
Acetaldehyde, trichloro-	75876	5000 (2270)
Acetamide, N-(4-ethoxyphenyl)-	62442	100 (45.4)
Acetamide, N-9H-fluoren-2-yl	53963	1 (0.454)
2-Acetylaminofluorene	53963	1 (0.454)
Acrylonitrile	107131	100 (45.4)
Aldrin	309002	1 (0.454)
Amitrole	61825	10 (4.54)
Ammonium bichromate	7789095	10 (4.54)
Ammonium chromate	7788989	10 (4.54)
Aroclor 1016	12674112	1 (0.454)
Aroclor 1221	11104282	1 (0.454)
Aroclor 1232	11141165	1 (0.454)
Aroclor 1242	53469219	1 (0.454)
Aroclor 1248	12672296	1 (0.454)
Aroclor 1254	11097691	1 (0.454)
Aroclor 1260	11096825	1 (0.454)
Arsenic ††	7440382	1 (0.454)
		1 (0.454)
Arsenic acid	1327522	
	7778394	
Arsenic acid H3AsO4	1327522	
	7778394	1 (0.454)
Arsenic disulfide	1303328	1 (0.454)
Arsenic oxide As2O3	1327533	1 (0.454)
Arsenic oxide As2O5	1303282	1 (0.454)
Arsenic pentoxide	1303282	1 (0.454)
Arsenic trichloride	7784341	1 (0.454)
Arsenic trioxide	1327533	1 (0.454)
Arsenic trisulfide	1303339	1 (0.454)
Arsine, diethyl-	692422	1 (0.454)
Arsinic acid, dimethyl	75605	1 (0.454)
Arsonous dichloride, phenyl-	696286	1 (0.454)
Asbestos †††	1332214	1 (0.454)
Auramine	492808	100 (45.4)
Azaserine	115026	1 (0.454)
Aziridine	151564	1 (0.454)
Aziridine, 2-methyl-	75558	1 (0.454)
Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-	50077	10 (4.54)
Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56495	10 (4.54)
Benz[c]acridine	225514	100 (45.4)
Benz[a]anthracene	56553	10 (4.54)
1,2-Benzanthracene	56553	10 (4.54)
Benz[a]anthracene, 7,12-dimethyl-	57976	1 (0.454)
Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-	492808	100 (45.4)
Benzenamine, 4-chloro-2-methyl-, hydrochloride	3165933	100 (45.4)
Benzenamine, 2-methyl-	95534	100 (45.4)
Benzenamine, 4-methyl-	106490	100 (45.4)
Benzenamine, 4,4'-methylenebis(2-chloro-	101144	10 (4.54)
Benzenamine, 2-methyl-, hydrochloride	636215	100 (45.4)
Benzenamine, 2-methyl-5-nitro-	99558	100 (45.4)
Benzenamine, N,N-dimethyl-4-(phenylazo)-	60117	10 (4.54)
Benzene	71432	10 (4.54)
Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-,ethyl ester	510156	10 (4.54)
Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305033	10 (4.54)
Benzene, chloromethyl-	100447	100 (45.4)
Benzenediamine, ar-methyl-	95807	
	496720	
	823405	
	25376458	10 (4.54)
1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117817	100 (45.4)
Benzene,1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72548	1 (0.454)
Benzene, hexachloro-	118741	10 (4.54)
Benzene, 1-methyl-2,4-dinitro-	121142	10 (4.54)
Benzene, 2-methyl-1,3-dinitro-	606202	100 (45.4)
Benzene, pentachloronitro-	82688	100 (45.4)
Benzene,1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	50293	1 (0.454)
Benzene, (trichloromethyl)-	98077	10 (4.54)

TABLE 2.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Final RQ Pounds (Kg)
Benzidine	92875	1 (0.454)
Benzo[a]anthracene	56553	10 (4.54)
1,3-Benzodioxole, 5-(2-propenyl)-	94597	100 (45.4)
1,3-Benzodioxole, 5-(1-propenyl)-	120581	100 (45.4)
1,3-Benzodioxole,5-propyl-	94586	10 (4.54)
Benzo[b]fluoranthene	205992	1 (0.454)
Benzo(k)fluoranthene	207089	5000 (2270)
Benzo[rst]pentaphene	189559	10 (4.54)
Benzo[a]pyrene	50328	1 (0.454)
3,4-Benzopyrene	50328	1 (0.454)
Benzotrichloride	98077	10 (4.54)
1,2-Benzphenanthrene	218019	100 (45.4)
Benzyl chloride	100447	100 (45.4)
Beryllium [1]	7440417	10 (4.54)
Beryllium chloride	7787475	1 (0.454)
Beryllium dust [1]	7440417	10 (4.54)
Beryllium fluoride	7787497	1 (0.454)
Beryllium nitrate	13597994	
	7787555	1 (0.454)
alpha—BHC	319846	10 (4.54)
beta—BHC	319857	1 (0.454)
gamma—BHC	58899	1 (0.454)
2,2'Bioxirane	1464535	10 (4.54)
(1,1'-Biphenyl)-4,4'diamine	92875	1 (0.454)
(1,1'-Biphenyl)-4,4'diamine,3,3'dichloro-	91941	1 (0.454)
(1,1'-Biphenyl)-4,4'diamine,3,3'dimethoxy-	119904	100 (45.4)
(1,1'Biphenyl)-4,4'-diamine,3,3'-dimethyl-	119937	10 (4.54)
Bis(2-chloroethyl) ether	111444	10 (4.54)
Bis(2-ethylhexyl) phthalate	117817	100 (45.4)
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87683	1 (0.454)
1-Butanamine, N-butyl-N-nitroso-	924163	10 (4.54)
2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303344	10 (4.54)
Cacodylic acid	75605	1 (0.454)
Cadmium [1]	7440439	10 (4.54)
Cadmium acetate	543908	10 (4.54)
Cadmium bromide	7789426	10 (4.54)
Cadmium chloride	10108642	10 (4.54)
Calcium arsenate	7778441	1 (0.454)
Calcium arsenite	52740166	1 (0.454)
Calcium chromate	13765190	10 (4.54)
Camphene, octachloro-	8001352	1 (0.454)
Carbamic acid, ethyl ester	51796	100 (45.4)
Carbamic acid, methylnitroso-, ethyl ester	615532	1 (0.454)
Carbamic chloride, dimethyl-	79447	1 (0.454)
Carbamothioic acid, bis(1-methylethyl)-, S(2,3-dichloro-2-propenyl) ester	2303164	100 (45.4)
Carbon tetrachloride	56235	10 (4.54)
Chloral	75876	5000 (2270)
Chlorambucil	305033	10 (4.54)
Chlordane	57749	1 (0.454)
Chlordane, alpha & gamma isomers	57749	1 (0.454)
Chlordane, technical	57749	1 (0.454)
Chlornaphazine	494031	100 (45.4)
Chlorobenzilate	510156	10 (4.54)
Chloroform	67663	10 (4.54)
Chloromethyl methyl ether	107302	10 (4.54)
4-Chloro-o-toluidine, hydrochloride	3165933	100 (45.4)
Chromic acid	11115745	10(4.54)
	7738945	
Chromic acid H2CrO4, calcium salt	13765190	10 (4.54)
Chromium ††	7440473	5000 (2270)
Chrysene	218019	100 (45.4)
Coke Oven Emissions	N.A.	1 (0.454)
Creosote	8001589	1 (0.454)
Cupric acetoarsenite	12002038	1 (0.454)
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	58899	1 (0.454)
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77474	10 (4.54)
Cyclophosphamide	50180	10 (4.54)
Daunomycin	20830813	10 (4.54)
DDD	72548	1 (0.454)
4,4'-DDD	72548	1 (0.454)
DDE	72559	1 (0.454)
4,4'-DDE	72559	1 (0.454)
DDT	50293	1 (0.454)
4,4'-DDT	50293	1 (0.454)
Diallate	2303164	100 (45.4)
Dibenz[a,h]anthracene	53703	1 (0.454)
1,2:5,6-Dibenzanthracene	53703	1 (0.454)

TABLE 2.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Final RQ Pounds (Kg)
Dibenzo[a,h]anthracene	53703	1 (0.454)
Dibenzo[a,i]pyrene	189559	10 (4.54)
1,2-Dibromo-3-chloropropane	96128	1 (0.454)
3,3'-Dichlorobenzidine	91941	1 (0.454)
1,2-Dichloroethane	107062	100 (45.4)
1,1-Dichloroethylene	75354	100 (45.4)
Dichloroethyl ether	111444	10 (4.54)
Dichloromethyl ether	542881	10 (4.54)
Dichlorophenylarsine	696286	1 (0.454)
Dicofol	115322	10 (4.54)
Dieldrin	60571	1 (0.454)
1,2:3,4-Diepoxybutane	1464535	10 (4.54)
Diethylarsine	692422	1 (0.454)
N,N'-Diethylhydrazine	1615801	10 (4.54)
Diethylstilbestrol	56531	1 (0.454)
Dihydrosafrole	94586	10 (4.54)
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5alpha,8alpha,8beta)-	309002	1 (0.454)
2,7:3,6-Dimethanonaphth[2,3-b]oxirene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-	60571	1 (0.454)
3,3'-Dimethoxybenzidine	119904	100 (45.4)
Dimethylaminoazobenzene	60117	10 (4.54)
7,12-Dimethylbenz[a]anthracene	57976	1 (0.454)
3,3'-Dimethylbenzidine	119937	10 (4.54)
Dimethylcarbamoyl chloride	79447	1 (0.454)
1,1-Dimethylhydrazine	57147	10 (4.54)
1,2-Dimethylhydrazine	540738	1 (0.454)
Dimethyl sulfate	77781	100 (45.4)
Dinitrotoluene	25321146	10 (4.54)
3,4-Dinitrotoluene	610399	
2,4-Dinitrotoluene	121142	10 (4.54)
2,6-Dinitrotoluene	606202	100 (45.4)
1,2-Diphenylhydrazine	122667	10 (4.54)
Di-n-propylnitrosamine	621647	10 (4.54)
Epichlorohydrin	106898	100 (45.4)
Ethanamine, N-ethyl-N-nitroso-	55185	1 (0.454)
Ethane, 1,2-dibromo-	106934	1 (0.454)
Ethane, 1,2-dichloro-	107062	100 (45.4)
Ethane, hexachloro-	67721	100 (45.4)
Ethane, 1,1'-oxybis[2-chloro-	111444	10 (4.54)
Ethane, pentachloro-	76017	10 (4.54)
Ethane, 1,1,1,2-tetrachloro-	630206	100 (45.4)
Ethane, 1,1,2,2-tetrachloro-	79345	100 (45.4)
Ethanethioamide	62555	10 (4.54)
Ethane, 1,1,2-trichloro-	79005	100 (45.4)
Ethanol, 2,2'-(nitrosoimino)bis-	1116547	1 (0.454)
Ethenamine, N-methyl-N-nitroso-	4549400	10 (4.54)
Ethene, chloro-	75014	1 (0.454)
Ethene, 1,1-dichloro-	75354	100 (45.4)
Ethene, trichloro-	79016	100 (45.4)
Ethyl carbamate (urethane)	51796	100 (45.4)
Ethylene dibromide	106934	1 (0.454)
Ethylene dichloride	107062	100 (45.4)
Ethylenethiourea	96457	10 (4.54)
Ethylenimine	151564	1 (0.454)
Ethyl methanesulfonate	62500	1 (0.454)
Formaldehyde	50000	100 (45.4)
D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]-	18883664	1 (0.454)
Glycidylaldehyde	765344	10 (4.54)
Guanidine, N-methyl-N'-nitro-N-nitroso-	70257	10 (4.54)
Heptachlor	76448	1 (0.454)
Heptachlor epoxide	1024573	1 (0.454)
Hexachlorobenzene	118741	10 (4.54)
Hexachlorobutadiene	87683	1 (0.454)
Hexachlorocyclohexane (gamma isomer)	58899	1 (0.454)
Hexachlorocyclopentadiene	77474	10 (4.54)
Hexachloroethane	67721	100 (45.4)
Hydrazine	302012	1 (0.454)
Hydrazine, 1,2-diethyl-	1615801	10 (4.54)
Hydrazine, 1,1-dimethyl-	57147	10 (4.54)
Hydrazine, 1,2-dimethyl-	540738	1 (0.454)
Hydrazine, 1,2-diphenyl-	122667	10 (4.54)
2-Imidazolidinethione	96457	10 (4.54)
Indeno[1,2,3-cd]pyrene	193395	100 (45.4)
Isosafrole	120581	100 (45.4)
Kepone	143500	1 (0.454)
Lasiocarpine	303344	10 (4.54)
		1 (0.454)

TABLE 2.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Final RQ Pounds (Kg)
Lead arsenate	7784409	
	7645252	
	10102484	
Lead, bis(acetato-O)tetrahydroxytri-	1335326	100 (45.4)
Lead subacetate	1335326	100 (45.4)
Lindane	58899	1 (0.454)
Lithium chromate	14307358	10 (4.54)
Melphalan	148823	1 (0.454)
Methanamine, N-methyl-N-nitroso-	62759	10 (4.54)
Methane, chloro-	74873	100 (45.4)
Methane, chloromethoxy-	107302	10 (4.54)
Methane, iodo-	74884	100 (45.4)
Methane, isocyanato-	624839	# #
Methane, oxybis(chloro-	542881	10 (4.54)
Methanesulfonic acid, ethyl ester	62500	1 (0.454)
Methane, tetrachloro-	56235	10 (4.54)
Methane, trichloro-	67663	10 (4.54)
1,3,4-Metheno 2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	143500	1 (0.454)
4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76448	1 (0.454)
4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57749	1 (0.454)
Methyl chloride	74873	100 (45.4)
3-Methylcholanthrene	56495	10 (4.54)
4,4'-Methylenebis(2-chloroaniline)	101144	10 (4.54)
Methyl iodide	74884	100 (45.4)
Methyl isocyanate	624839	# #
Methylthiouracil	56042	10 (4.54)
Mitomycin C	50077	10 (4.54)
MNNG	70257	10 (4.54)
5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy)-alpha-L-]oxy-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830813	10 (4.54)
1-Naphthalenamine	134327	100 (45.4)
2-Naphthalenamine	91598	10 (4.54)
Naphthalenamine, N,N'-bis(2-chloroethyl)-	494031	100 (45.4)
2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl-[1,1'-biphenyl]-4,4'-diyl)-bis(azo)]bis[5-amino-4-hydroxy-,tetrasodium salt	72571	10 (4.54)
alpha-Naphthylamine	134327	100 (45.4)
beta-Naphthylamine	91598	10 (4.54)
Nickel ††	7440020	100 (45.4)
Nickel ammonium sulfate	15699180	100 (45.4)
Nickel carbonyl	13463393	10 (4.54)
Nickel carbonyl Ni(CO)4, (T-4)-	13463393	10 (4.54)
		100 (45.4)
Nickel chloride	7718549	10 (4.54)
	37211055	
Nickel cyanide	557197	
Nickel cyanide Ni(CN)2	557197	10 (4.54)
Nickel hydroxide	12054487	10 (4.54)
Nickel nitrate	14216752	100 (45.4)
Nickel sulfate	7786814	100 (45.4)
N-Nitrosodi-n-butylamine	924163	10 (4.54)
N-Nitrosodiethanolamine	1116547	1 (0.454)
N-Nitrosodiethylamine	55185	1 (0.454)
N-Nitrosodimethylamine	62759	10 (4.54)
N-Nitroso-N-ethylurea	759739	1 (0.454)
N-Nitroso-N-methylurea	684935	1 (0.454)
N-Nitroso-N-methylurethane	615532	1 (0.454)
N-Nitrosomethylvinylamine	4549400	10 (4.54)
N-Nitrosopiperidine	100754	10 (4.54)
N-Nitrosopyrrolidine	930552	1 (0.454)
5-Nitro-o-toluidine	99558	100 (45.4)
1,2-Oxathiolane, 2,2-dioxide	1120714	10 (4.54)
2H-1,3,2-Oxazaphosphorin,2-amine,N,N-bis(2-chloroethyl)tetrahydro-,2-oxide	50180	10 (4.54)
Oxiranecarboxyaldehyde	765344	10 (4.54)
Oxirane, (chloromethyl)-	106898	100 (45.4)
Parathion	56382	10 (4.54)
Pentachloroethane	76017	10 (4.54)
Pentachloronitrobenzene (PCNB)	82688	100 (45.4)
Pentachlorophenol	87865	10 (4.54)
Phenacetin	62442	100 (45.4)
Phenol,4,4'-(1,2-diethyl-1,2-ethenediyl)bis-,(E)-	56531	1 (0.454)
Phenol, pentachloro-	87865	10 (4.54)
Phenol, 2,4,5-trichloro-	95954	10 (4.54)
Phenol, 2,4,6-trichloro-	88062	10 (4.54)
L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]	148823	1 (0.454)
1,10-(1,2-Phenylene)pyrene	193395	100 (45.4)
Phosphorothioic acid, 0,0-diethyl 0-(4-nitrophenyl) ester	56382	10 (4.54)
Piperidine, 1-nitroso-	100754	10 (4.54)
Polychlorinated Biphenyls (PCBs)	1336363	1 (0.454)
Polychlorinated Biphenyls (PCBs)	12674112	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11104282	1 (0.454)

TABLE 2.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Final RQ Pounds (Kg)
Polychlorinated Biphenyls (PCBs)	11141165	1 (0.454)
Polychlorinated Biphenyls (PCBs)	53469219	1 (0.454)
Polychlorinated Biphenyls (PCBs)	12672296	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11097691	1 (0.454)
Polychlorinated Biphenyls (PCBs)	11096825	1 (0.454)
Potassium arsenate	7784410	1 (0.454)
Potassium arsenite	10124502	1 (0.454)
Potassium bichromate	7778509	10 (4.54)
Potassium chromate	7789006	10 (4.54)
1-Propanamine, N-nitroso-N-propyl-	621647	10 (4.54)
Propane, 1,2-dibromo-3-chloro-	96128	1 (0.454)
1,3-Propane sultone	1120714	10 (4.54)
1-Propanol, 2,3-dibromo-, phosphate (3:1)	126727	10 (4.54)
2-Propenenitrile	107131	100 (45.4)
1,2-Propylenimine	75558	1 (0.454)
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66751	10 (4.54)
4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56042	10 (4.54)
Pyrrolidine, 1-nitroso-	930552	1 (0.454)
Safrole	94597	100 (45.4)
Selenium sulfide	7488564	10 (4.54)
Selenium sulfide SeS2	7488564	10 (4.54)
L-Serine, diazoacetate (ester)	115026	1 (0.454)
Sodium arsenate	7631892	1 (0.454)
Sodium arsenite	7784465	1 (0.454)
Sodium bichromate	10588019	10 (4.54)
Sodium chromate	7775113	10 (4.54)
Streptozotocin	18883664	1 (0.454)
Strontium chromate	7789062	10 (4.54)
Sulfuric acid, dimethyl ester	77781	100 (45.4)
TDE	72548	1 (0.454)
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746016	1 (0.454)
1,1,1,2-Tetrachloroethane	630206	100 (45.4)
1,1,2,2-Tetrachloroethane	79345	100 (45.4)
Thioacetamide	62555	10 (4.54)
Thiourea	62566	10 (4.54)
Toluenediamine		10 (4.54)
	95807	
	496720	
	823405	
	25376458	
o-Toluidine	95534	100 (45.4)
p-Toluidine	106490	100 (45.4)
o-Toluidine hydrochloride	636215	100 (45.4)
Toxaphene	8001352	1 (0.454)
1H-1,2,4-Triazol-3-amine	61825	10 (4.54)
1,1,2-Trichloroethane	79005	100 (45.4)
Trichloroethene	79016	100 (45.4)
Trichloroethylene	79016	100 (45.4)
Trichlorophenol	25167822	10 (4.54)
2,3,4-Trichlorophenol	15950660	
2,3,5-Trichlorophenol	933788	
2,3,6-Trichlorophenol	933755	
2,4,5-Trichlorophenol	95954	10 (4.54)
2,4,6-Trichlorophenol	88062	10 (4.54)
3,4,5-Trichlorophenol	609198	
2,4,5-Trichlorophenol	95954	10 (4.54)
2,4,6-Trichlorophenol	88062	10 (4.54)
Tris(2,3-dibromopropyl) phosphate	126727	10 (4.54)
Trypan blue	72571	10 (4.54)
Unlisted Hazardous Wastes Characteristic of EP Toxicity	N.A.	
Arsenic D004	N.A.	1 (0.454)
Cadmium D006	N.A.	10 (4.54)
Chromium D007	N.A.	10 (4.54)
Lindane D013	N.A.	1 (0.454)
Toxaphene D015	N.A.	1 (0.454)
Uracil mustard	66751	10 (4.54)
Urea,N-ethyl-N-nitroso-	759739	1 (0.454)
Urea, N-methyl-N-nitroso-	684935	1 (0.454)
Vinyl chloride	75014	1 (0.454)
Vinylidene chloride	75354	100 (45.4)
F001	N.A.	10 (4.54)
F002	N.A.	10 (4.54)
F006	N.A.	10 (4.54)
F019	N.A.	10 (4.54)
F020	N.A.	1 (0.454)
F021	N.A.	1 (0.454)
F022	N.A.	1 (0.454)
F023	N.A.	1 (0.454)
F024	N.A.	1 (0.454)

TABLE 2.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	CASRN	Final RQ Pounds (Kg)
F026	N.A.	1 (0.454)
F027	N.A.	1 (0.454)
F028	N.A.	1 (0.454)
K001	N.A.	1 (0.454)
K004	N.A.	10 (4.54)
K006	N.A.	10 (4.54)
K007	N.A.	10 (4.54)
K008	N.A.	10 (4.54)
K009	N.A.	10 (4.54)
K010	N.A.	10 (4.54)
K011	N.A.	10 (4.54)
K013	N.A.	10 (4.54)
K015	N.A.	10 (4.54)
K016	N.A.	1 (0.454)
K017	N.A.	10 (4.54)
K018	N.A.	1 (0.454)
K019	N.A.	1 (0.454)
K020	N.A.	1 (0.454)
K021	N.A.	10 (4.54)
K022	N.A.	1 (0.454)
K025	N.A.	10 (4.54)
K027	N.A.	10 (4.54)
K028	N.A.	1 (0.454)
K029	N.A.	1 (0.454)
K030	N.A.	1 (0.454)
K031	N.A.	1 (0.454)
K032	N.A.	10 (4.54)
K033	N.A.	10 (4.54)
K034	N.A.	10 (4.54)
K035	N.A.	1 (0.454)
K038	N.A.	10 (4.54)
K040	N.A.	10 (4.54)
K041	N.A.	1 (0.454)
K042	N.A.	10 (4.54)
K043	N.A.	10 (4.54)
K050	N.A.	10 (4.54)
K060	N.A.	1 (0.454)
K073	N.A.	10 (4.54)
K084	N.A.	1 (0.454)
K085	N.A.	10 (4.54)
K095	N.A.	100 (45.4)
K096	N.A.	100 (45.4)
K097	N.A.	1 (0.454)
K098	N.A.	1 (0.454)
K099	N.A.	10 (4.54)
K101	N.A.	1 (0.454)
K102	N.A.	1 (0.454)
K104	N.A.	10 (4.54)
K105	N.A.	10 (4.54)
K111	N.A.	10 (4.54)
K112	N.A.	10 (4.54)
K113	N.A.	10 (4.54)
K114	N.A.	10 (4.54)
K115	N.A.	10 (4.54)
K116	N.A.	10 (4.54)
K117	N.A.	1 (0.454)
K118	N.A.	1 (0.454)
K123	N.A.	10 (4.54)
K124	N.A.	10 (4.54)
K125	N.A.	10 (4.54)
K126	N.A.	10 (4.54)
K136	N.A.	1 (0.454)

†† No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 100 micrometers (0.004 inches).

††† The RQ for asbestos is limited to friable forms only.

The Agency may adjust the RQs for these hazardous substances in a future rulemaking; until that time the statutory RQ will be retained.

N.A.—Not applicable.

VII. Summary of Supporting Analyses

A. Executive Order No. 12291

Executive Order (E.O.) No. 12291 requires that regulations be classified as major or nonmajor for purposes of review by the Office of Management and Budget (OMB). According to E.O. No. 12291, major rules are regulations that are likely to result in:

(1) An annual effect on the economy of $100 million or more; or

(2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-

based enterprises in domestic or export markets.

As demonstrated by an economic analysis performed by the Agency, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460, this final rule is nonmajor, because the rule will result in estimated net cost savings of $15.4 million annually. The annual net cost savings of all RQ adjustments promulgated or proposed to date (including those contained in this final rule) are estimated to be $34.7 million. These net cost savings reflect only those effects of RQ adjustments that are: (1) Readily quantifiable in dollars; and (2) associated with the release notification requirements under CERCLA section 103 and SARA section 304 (including the associated activities of recordkeeping, notification processing, monitoring, and response).

This final rule has been submitted to OMB for review, as required by E.O. No. 12291.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires that a Regulatory Flexibility Analysis be performed for all rules that are likely to have a "significant impact on a substantial number of small entities." To determine whether a Regulatory Flexibility Analysis is necessary for this final rule, a preliminary analysis was conducted using a computer model that simulated the typical operation of a small U.S. chemical company.

The results of the simulation indicate that the upper-bound total cost of compliance to small firms is negligible. See the "Regulatory Impact Analysis of Reportable Quantity Adjustments Under Sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act," Volume I, March 1985, available for inspection at Room M2427, U.S. EPA, 401 M Street, SW., Washington, DC 20460. Therefore, because this final rule is not expected to have a significant impact on small entities, EPA certifies that no Regulatory Flexibility Analysis is necessary.

C. Paperwork Reduction Act

EPA requires an Information Impact Analysis for all rules that impose a paperwork burden on the public. This analysis estimates the burden imposed on parties outside EPA for activities such as notification or recordkeeping. This final rule will provide a decrease in the paperwork burden imposed on the regulated community for information collection associated with fewer releases being reportable. Because the effect of this final rule on the paperwork burden is a reduction, EPA has determined that no further Information Impact Analysis need be performed.

The information collection requirements contained in this rule have been approved by OMB under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB control number 2050–0046.

The public reporting burden for this collection of information is estimated to vary from eight to 11 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

Notes

Note 1: EPA proposed RQ adjustments for most of the hazardous substances whose RQs are promulgated in this final rule on March 16, 1987. As of that date, there were 717 CERCLA hazardous substances. Changes to the list of CERCLA hazardous substances since March 16, 1987 are described below. Four hazardous waste streams (K123, K124, K125, and K126) were added in a final rule (51 FR 37725) that became effective on April 24, 1987, bringing the total number of CERCLA hazardous substances to 721. EPA removed iron dextran and strontium sulfide from the list in two final rules (53 FR 43878 and 53 FR 43881) effective October 31, 1988, thus reducing the number of CERCLA hazardous substances to 719. Six hazardous substances (waste streams K064, K065, K066, K088, K090, and K091) were added in a final rule (53 FR 35412) that became effective on March 13, 1989, increasing the number of CERCLA hazardous substances to 725, which is the current total. Lastly, based on this final rule, ammonium thiosulfate will be removed from the CERCLA list 60 days from today's date, thus reducing the number of CERCLA hazardous substances to 724.

Note 2: RQs for 273 hazardous substances were proposed for adjustment on March 16, 1987 in a Notice of Proposed Rulemaking (NPRM). RQs for 254 of these 273 hazardous substances are being promulgated in this rule. RQs for six of these 273 hazardous substances are promulgated elsewhere in today's **Federal Register**. These six hazardous substances are: 1,4-dioxane, 2-ethoxyethanol, ethylene oxide, 2-nitropropane, perchloroethylene, and saccharin. As explained in Section II.C.2.i of this preamble, EPA will also address the RQs for the remaining 13 of the 273 hazardous substances in a future action.

Note 3: These four hazardous substances (waste streams K123, K124, K125, and K126) were listed in a final rule that became effective on April 24, 1987 (see 51 FR 37725, October 24, 1986). Although RQs for these four waste streams were not proposed in the March 16, 1987 NPRM, the RQ for the only hazardous substance in these waste streams (ethylene thiourea), which determines the RQ for the waste streams themselves, was proposed for adjustment in the March 16, 1987 NPRM. For further discussion of the RQ adjustments for these four hazardous waste streams, see Section II.C.1 of this preamble.

List of Subjects

40 CFR Part 116

Hazardous substances, Penalties, Water pollution control.

40 CFR Part 117

Hazardous substances, Penalties, Reporting and recordkeeping requirements, Water pollution control.

40 CFR Part 302

Air pollution control, Chemicals, Hazardous materials, Hazardous materials transportation, Hazardous substances, Hazardous wastes, Intergovernmental relations, Natural resources, Oil pollution, Pesticides and pests, Reporting and recordkeeping requirements, Superfund, Waste treatment and disposal, Water pollution control, Water supply.

Dated: June 26, 1989.

William K. Reilly,

Administrator.

For the reasons set forth in the preamble, chapter I of Title 40 of the Code of Federal Regulations is amended as follows:

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

1. The authority citation for Part 302 is revised to read as follows:

Authority: 42 U.S.C. 9602; 33 U.S.C. 1321 and 1361.

2. Section 302.4 is amended by revising Table 302.4 and Appendix A to Table 302.4 to read as set forth below. The appropriate footnotes to Table 302.4 are republished without change and footnote "# #" is revised as set forth below. Included in these amendments to Table 302.4 and Appendix A to Table 302.4 is the removal of the entry for "Ammonium thiosulfate," CASRN 7783188, as well as the removal of the term "Kelthane," CASRN 115322, and the insertion in its place of the term "Dicofol." The note preceding Table 302.4 is republished without change.

§ 302.4 [Amended]

* * * * *

Note—The numbers under the column headed "CASRN" are the Chemical Abstracts Service Registry Numbers for each hazardous substance. Other names by which each hazardous substance is identified in other statutes and their implementing regulations are provided in the "Regulatory Synonyms" column. The "Statutory RQ" column lists the RQs for hazardous substances established by section 102 of CERCLA. The "Statutory Code" column indicates the statutory source for designating each substance as a CERCLA hazardous substance: "1" indicates that the statutory source is section 311(b)(4) of the Clean Water Act, "2" indicates that the source is section 307(a) of the Clean Water Act, "3" indicates that the source is section 112 of the Clean Air Act, and "4" indicates that the source is RCRA section 3001. The "RCRA Waste Number" column provides the waste identification numbers assigned to various substances by RCRA regulations. The column headed "Category" lists the code letters "X," "A," "B," "C," and "D," which are associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively. The "Pounds (kg)" column provides the reportable quantity adjustment for each hazardous substance in pounds and kilograms.

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Acenaphthene	83329		1*	2		B	100 (45.4)
Acenaphthylene	208968		1*	2		D	5000 (2270)
Acetaldehyde	75070	Ethanal	1000	1,4	U001	C	1000 (454)
Acetaldehyde, chloro-	107200	Chloroacetaldehyde	1*	4	P023	C	1000 (454)
Acetaldehyde, trichloro-	75876	Chloral	1*	4	U034	D	5000 (2270)
Acetamide, N-(aminothioxomethyl)-	591082	1-Acetyl-2-thiourea	1*	4	P002	C	1000 (454)
Acetamide, N-(4-ethoxyphenyl)-	62442	Phenacetin	1*	4	U187	B	100 (45.4)
Acetamide, 2-fluoro-	640197	Fluoroacetamide	1*	4	P057	B	100 (45.4)
Acetamide, N-9H-fluoren-2-yl-	53963	2-Acetylaminofluorene	1*	4	U005	X	1 (0.454)
Acetic acid	64197		1000	1		D	5000 (2270)
Acetic acid (2,4-dichlorophenoxy)-	94757	2,4-D Acid 2,4-D, salts and esters	100	1,4	U240	B	100 (45.4)
Acetic acid, lead(2+) salt	301042	Lead acetate	5000	1,4	U144		#
Acetic acid, thallium(1+) salt	563688	Thallium(I) acetate	1*	4	U214	B	100 (45.4)
Acetic acid, (2,4,5-trichlorophenoxy)	93765	2,4,5-T 2,4,5-T acid	100	1,4	U232	C	1000 (454)
Acetic acid, ethyl ester	141786	Ethyl acetate	1*	4	U112	D	5000 (2270)
Acetic acid, fluoro-, sodium salt	62748	Fluoroacetic acid, sodium salt	1*	4	P058	A	10 (4.54)
Acetic anhydride	108247		1000	1		D	5000 (2270)
Acetone	67641	2-Propanone	1*	4	U002	D	5000 (2270)
Acetone cyanohydrin	75865	Propanenitrile, 2-hydroxy-2-methyl-2-Methyllactonitrile	10	1,4	P069	A	10 (4.54)
Acetonitrile	75058		1*	4	U003	D	5000 (2270)
Acetophenone	98862	Ethanone, 1-phenyl-	1*	4	U004	D	5000 (2270)
2-Acetylaminofluorene	53963	Acetamide, N-9H-fluoren-2-yl-	1*	4	U005	X	1 (0.454)
Acetyl bromide	506967		5000	1		D	5000 (2270)
Acetyl chloride	75365		5000	1,4	U006	D	5000 (2270)
1-Acetyl-2-thiourea	591082	Acetamide, N-(aminothioxomethyl)-	1*	4	P002	C	1000 (454)
Acrolein	107028	2-Propenal	1	1,2,4	P003	X	1 (0.454)
Acrylamide	79061	2-Propenamide	1*	4	U007	D	5000 (2270)
Acrylic acid	79107	2-Propenoic acid	1*	4	U008	D	5000 (2270)
Acrylonitrile	107131	2-Propenenitrile	100	1,2,4	U009	B	100 (45.4)
Adipic acid	124049		5000	1		D	5000 (2270)
Aldicarb	116063	Propanal, 2-methyl-2-(methylthio)-,O-[(methylamino)carbonyl]oxime	1*	4	P070	X	1 (0.454)
Aldrin	309002	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha, 4alpha,4abeta,5alpha,8alpha,8abeta)-	1	1,2,4	P004	X	1 (0.454)
Allyl alcohol	107186	2-Propen-1-ol	100	1,4	P005	B	100 (45.4)
Allyl chloride	107051		1000	1		C	1000 (454)
Aluminum phosphide	20859738		1*	4	P006	B	100 (45.4)
Aluminum sulfate	10043013		5000	1		D	5000 (2270)
5-(Aminomethyl)-3-isoxazolol	2763964	Muscimol 3(2H)-Isoxazolone, 5-(aminomethyl)-	1*	4	P007	C	1000 (454)
4-Aminopyridine	504245	4-Pyridinamine	1*	4	P008	C	1000 (454)
Amitrole	61825	1H-1,2,4-Triazol-3-amine	1*	4	U011	A	10 (4.54)
Ammonia	7664417		100	1		B	100 (45.4)
Ammonium acetate	631618		5000	1		D	5000 (2270)
Ammonium benzoate	1863634		5000	1		D	5000 (2270)
Ammonium bicarbonate	1066337		5000	1		D	5000 (2270)
Ammonium bichromate	7789095		1000	1		A	10 (4.54)
Ammonium bifluoride	1341497		5000	1		B	100 (45.4)
Ammonium bisulfite	10192300		5000	1		D	5000 (2270)
Ammonium carbamate	1111780		5000	1		D	5000 (2270)
Ammonium carbonate	506876		5000	1		D	5000 (2270)
Ammonium chloride	12125029		5000	1		D	5000 (2270)
Ammonium chromate	7788989		1000	1		A	10 (4.54)
Ammonium citrate, dibasic	3012655		5000	1		D	5000 (2270)
Ammonium fluoborate	13826830		5000	1		D	5000 (2270)
Ammonium fluoride	12125018		5000	1		B	100 (45.4)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Ammonium hydroxide	1336216		1000	1		C	1000 (454)
Ammonium oxalate	6009707		5000	1		D	5000 (2270)
	5972736						
	14258492						
Ammonium picrate	131748	Phenol, 2,4,6-trinitro-, ammonium salt	1*	4	P009	A	10 (4.54)
Ammonium silicofluoride	16919190		1000	1		C	1000 (454)
Ammonium sulfamate	7773060		5000	1		D	5000 (2270)
Ammonium sulfide	12135761		5000	1		B	100 (45.4)
Ammonium sulfite	10196040		5000	1		D	5000 (2270)
Ammonium tartrate	14307438		5000	1		D	5000 (2270)
	3164292						
Ammonium thiocyanate	1762954		5000	1		D	5000 (2270)
Ammonium vanadate	7803556	Vanadic acid, ammonium salt	1*	4	P119	C	1000 (454)
Amyl acetate	628637		1000	1		D	5000 (2270)
iso-Amyl acetate	123922						
sec-Amyl acetate	626380						
tert-Amyl acetate	625161						
Aniline	62533	Benzenamine	1000	1,4	U012	D	5000 (2270)
Anthracene	120127		1*	2		D	5000 (2270)
Antimony ††	7440360		1*	2		D	5000 (2270)
ANTIMONY AND COMPOUNDS	N.A.		1*	2			**
Antimony pentachloride	7647189		1000	1		C	1000 (454)
Antimony potassium tartrate	28300745		1000	1		B	100 (45.4)
Antimony tribromide	7789619		1000	1		C	1000 (454)
Antimony trichloride	10025919		1000	1		C	1000 (454)
Antimony trifluoride	7783564		1000	1		C	1000 (454)
Antimony trioxide	1309644		5000	1		C	1000 (454)
Argentate(1-), bis(cyano-C)-, potassium	506616	Potassium silver cyanide	1*	4	P099	X	1 (0.454)
Aroclor 1016	12674112	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1221	11104282	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1232	11141165	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1242	53469219	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1248	12672296	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1254	11097691	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Aroclor 1260	11096825	POLYCHLORINATED BIPHENYLS (PCBs)	10	1,2		X	1 (0.454)
Arsenic ††	7440382		1*	2,3		X	1 (0.454)
Arsenic acid	1327522	Arsenic acid H3AsO4	1*	4	P010	X	1 (0.454)
	7778394						
Arsenic acid H3AsO4	1327522	Arsenic acid	1*	4	P010	X	1 (0.454)
	7778394						
ARSENIC AND COMPOUNDS	N.A.		1*	2			**
Arsenic disulfide	1303328		5000	1		X	1 (0.454)
Arsenic oxide As2O3	1327533	Arsenic trioxide	5000	1,4	P012	X	1 (0.454)
Arsenic oxide As2O5	1303282	Arsenic pentoxide	5000	1,4	P011	X	1 (0.454)
Arsenic pentoxide	1303282	Arsenic oxide As2O5	5000	1,4	P011	X	1 (0.454)
Arsenic trichloride	7784341		5000	1		X	1 (0.454)
Arsenic trioxide	1327533	Arsenic oxide As2O3	5000	1,4	P012	X	1 (0.454)
Arsenic trisulfide	1303339		5000	1		X	1 (0.454)
Arsine, diethyl-	692422	Diethylarsine	1*	4	P038	X	1 (0.454)
Arsinic acid, dimethyl-	75605	Cacodylic acid	1*	4	U136	X	1 (0.454)
Arsonous dichloride, phenyl-	696286	Dichlorophenylarsine	1*	4	P036	X	1 (0.454)
Asbestos †††	1332214		1*	2,3		X	1 (0.454)
Auramine	492808	Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-	1*	4	U014	B	100 (45.4)
Azaserine	115026	L-Serine, diazoacetate (ester)	1*	4	U015	X	1 (0.454)
Aziridine	151564	Ethylenimine	1*	4	P054	X	1 (0.454)
Aziridine, 2-methyl-	75558	1,2-Propylenimine	1*	4	P067	X	1 (0.454)
Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-[[(aminocarbonyloxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-,[1aS-(1aalpha,8beta,8aalpha,8balpha)]-	50077	Mitomycin C	1*	4	U010	A	10 (4.54)
Barium cyanide	542621		10	1,4	P013	A	10 (4.54)
Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56495	3-Methylcholanthrene	1*	4	U157	A	10 (4.54)
Benz[c]acridine	225514		1*	4	U016	B	100 (45.4)
Benzal chloride	98873	Benzene, dichloromethyl-	1*	4	U017	D	5000 (2270)
Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-.	23950585	Pronamide	1*	4	U192	D	5000 (2270)
Benz[a]anthracene	56553	Benzo[a]anthracene 1,2-Benzanthracene	1*	2,4	U018	A	10 (4.54)
1,2-Benzanthracene	56553	Benz[a]anthracene Benzo[a]anthracene	1*	2,4	U018	A	10 (4.54)
Benz[a]anthracene, 7,12-dimethyl-	57976	7,12-Dimethylbenz[a]anthracene	1*	4	U094	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Benzenamine	62533	Aniline	1000	1,4	U012	D	5000 (2270)
Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-	492808	Auramine	1*	4	U014	B	100 (45.4)
Benzenamine, 4-chloro-	106478	p-Chloroaniline	1*	4	P024	C	1000 (454)
Benzenamine, 4-chloro-2-methyl-, hydrochloride	3165933	4-Chloro-o-toluidine, hydrochloride	1*	4	U049	B	100 (45.4)
Benzenamine, N,N-dimethyl-4-(phenylazo-)	60117	p-Dimethylaminoazobenzene	1*	4	U093	A	10 (4.54)
Benzenamine, 2-methyl-	95534	o-Toluidine	1*	4	U328	B	100 (45.4)
Benzenamine, 4-methyl-	106490	p-Toluidine	1*	4	U353	B	100 (45.4)
Benzenamine, 4,4'-methylenebis(2-chloro-	101144	4,4'-Methylenebis(2-chloroaniline)	1*	4	U158	A	10 (4.54)
Benzenamine, 2-methyl-, hydrochloride	636215	o-Toluidine hydrochloride	1*	4	U222	B	100 (45.4)
Benzenamine, 2-methyl-5-nitro-	99558	5-Nitro-o-toluidine	1*	4	U181	B	100 (45.4)
Benzenamine, 4-nitro-	100016	p-Nitroaniline	1*	4	P077	D	5000 (2270)
Benzene	71432		1000	1,2,3,4	U109	A	10 (4.54)
Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510156	Chlorobenzilate	1*	4	U038	A	10 (4.54)
Benzene, 1-bromo-4-phenoxy-	101553	4-Bromophenyl phenyl ether	1*	2,4	U030	B	100 (45.4)
Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305033	Chlorambucil	1*	4	U035	A	10 (4.54)
Benzene, chloro-	108907	Chlorobenzene	100	1,2,4	U037	B	100 (45.4)
Benzene, chloromethyl-	100447	Benzyl chloride	100	1,4	P028	B	100 (45.4)
Benzenediamin, ar-methyl-	95807 496720 823405	Toluenediamine	1*	4	U221	A	10 (4.54)
1,2-Benzenedicarboxylic acid, dioctyl ester	117840	Di-n-octyl phthalate	1*	2,4	U107	D	5000 (2270)
1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)]-ester.	117817	Bis (2-ethylhexyl)phthalate Diethylhexyl phthalate	1*	2,4	U028	B	100 (45.4)
1,2-Benzenedicarboxylic acid, dibutyl ester	84742	Di-n-butyl phthalate Dibutyl phthalate n-Butyl phthalate	100	1,2,4	U069	A	10 (4.54)
1,2-Benzenedicarboxylic acid, diethyl ester	84662	Diethyl phthalate	1*	2,4	U088	C	1000 (454)
1,2-Benzenedicarboxylic acid, dimethyl ester	131113	Dimethyl phthalate	1*	2,4	U102	D	5000 (2270)
Benzene, 1,2-dichloro-	95501	o-Dichlorobenzene 1,2-Dichlorobenzene	100	1,2,4	U070	B	100 (45.4)
Benzene, 1,3-dichloro-	541731	m-Dichlorobenzene 1,3-Dichlorobenzene	1*	2,4	U071	B	100 (45.4)
Benzene, 1,4-dichloro-	106467	p-Dichlorobenzene 1,4-Dichlorobenzene	100	1,2,4	U072	B	100 (45.4)
Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72548	DDD TDE 4,4' DDD	1	1,2,4	U060	X	1 (0.454)
Benzene, dichloromethyl-	98873	Benzal chloride	1*	4	U017	D	5000 (2270)
Benzene, 1,3-diisocyanatomethyl-	584849 91087 26471625	Toluene diisocyanate	1*	4	U223	B	100 (45.4)
Benzene, dimethyl	1330207	Xylene (mixed)	1000	1,4	U239	C	1000 (454)
m-Benzene, dimethyl	108383	m-Xylene					
o-Benzene, dimethyl	95476	o-Xylene					
p-Benzene, dimethyl	106423	p-Xylene					
1,3-Benzenediol	108463	Resorcinol	1000	1,4	U201	D	5000 (2270)
1,2-Benzenediol,4-[1-hydroxy-2-(methylamino)ethyl]-	51434	Epinephrine	1*	4	P042	C	1000 (454)
Benzeneethanamine, alpha,alpha-dimethyl-	122098	alpha,alpha-Dimethylphenethylamine	1*	4	P046	D	5000 (2270)
Benzene, hexachloro-	118741	Hexachlorobenzene	1*	2,4	U127	A	10 (4.54)
Benzene, hexahydro-	110827	Cyclohexane	1000	1,4	U056	C	1000 (454)
Benzene, hydroxy-	108952	Phenol	1000	1,2,4	U188	C	1000 (454)
Benzene, methyl-	108883	Toluene	1000	1,2,4	U220	C	1000 (454)
Benzene, 2-methyl-1,3-dinitro-	606202	2,6-Dinitrotoluene	1000	1,2,4	U106	B	100 (45.4)
Benzene, 1-methyl-2,4-dinitro-	121142	2,4-Dinitrotoluene	1000	1,2,4	U105	A	10 (4.54)
Benzene, 1-methylethyl-	98828	Cumene	1*	4	U055	D	5000 (2270)
Benzene, nitro-	98953	Nitrobenzene	1000	1,2,4	U169	C	1000 (454)
Benzene, pentachloro-	608935	Pentachlorobenzene	1*	4	U183	A	10 (4.54)
Benzene, pentachloronitro-	82688	Pentachloronitrobenzene (PCNB)	1*	4	U185	B	100 (45.4)
Benzenesulfonic acid chloride	98099	Benzenesulfonyl chloride	1*	4	U020	B	100 (45.4)
Benzenesulfonyl chloride	98099	Benzenesulfonic acid chloride	1*	4	U020	B	100 (45.4)
Benzene, 1,2,4,5-tetrachloro-	95943	1,2,4,5-Tetrachlorobenzene	1*	4	U207	D	5000 (2270)
Benzenethiol	108985	Thiophenol	1*	4	P014	B	100 (45.4)
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	50293	DDT 4,4'DDT	1	1,2,4	U061	X	1 (0.454)
Benzene, 1,1'-(2,2,2-trichloroethylidene) bis[4-methoxy-	72435	Methoxychlor	1	1,4	U247	X	1 (0.454)
Benzene, (trichloromethyl)-	98077	Benzotrichloride	1*	4	U023	A	10 (4.54)
Benzene, 1,3,5-trinitro-	99354	1,3,5-Trinitrobenzene	1*	4	U234	A	10 (4.54)
Benzidine	92875	(1,1'-Biphenyl)-4,4'diamine	1*	2,4	U021	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81072	Saccharin and salts	1*	4	U202	B	100 (45.4)
Benzo[a]anthracene	56553	Benz[a]anthracene 1,2-Benzanthracene	1*	2,4	U018	A	10 (4.54)
Benzo[b]fluoranthene	205992		1*	2		X	1 (0.454)
Benzo(k)fluoranthene	207089		1*	2		D	5000 (2270)
Benzo[j,k]fluorene	206440	Fluoranthene	1*	2,4	U120	B	100 (45.4)
1,3-Benzodioxole, 5-)1-propenyl)-	120581	Isosafrole	1*	4	U141	B	100 (45.4)
1,3-Benzodioxole,5-(2-propenyl)-	94597	Safrole	1*	4	U203	B	100 (45.4)
1,3-Benzodioxole, 5-propyl-	94586	Dihydrosafroie	1*	4	U090	A	10 (4.54)
Benzoic acid	65850		5000	1		D	5000 (2270)
Benzonitrile	100470		1000	1		D	5000 (2270)
Benzo [rst]pentaphene	189559	Dibenz[a,i]pyrene	1*	4	U064	A	10 (4.54)
Benzo[ghi]perylene	191242		1*	2		D	5000 (2270)
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations greater than 0.3%	81812	Warfarin, & salts, when present at concentrations greater than 0.3%	1*	4	P001	B	100 (45.4)
Benzo[a]pyrene	50328	3,4-Benzopyrene	1*	2,4	U022	X	1 (0.454)
3,4-Benzopyrene	50328	Benzo[a]pyrene	1*	2,4	U022	X	1 (0.454)
p-Benzoquinone	106514	2,5-Cyclohexadiene-1,4-dione	1*	4	U197	A	10 (4.54)
Benzotrichloride	98077	Benzene, (trichloromethyl)-	1*	4	U023	A	10 (4.54)
Benzoyl chloride	98884		1000	1		C	1000 (454)
1,2-Benzphenanthrene	218019	Chrysene	1*	2,4	U050	B	100 (45.4)
Benzyl chloride	100447	Benzene, chloromethyl-	100	1,4	P028	B	100 (45.4)
Beryllium ††	7440417	Beryllium dust ††	1*	2,3,4	P015	A	10 (4.54)
BERYLLIUM AND COMPOUNDS	N.A.		1*	2			**
Beryllium chloride	7787475		5000	1		X	1 (0.454)
Beryllium dust ††	7440417	Beryllium ††	1*	2,3,4	P015	A	10 (4.54)
Beryllium fluoride	7787497		5000	1		X	1 (0.454)
Beryllium nitrate	13597994 7787555		5000	1		X	1 (0.454)
alpha—BHC	319846		1*	2		A	10 (4.54)
beta—BHC	319857		1*	2		X	1 (0.454)
delta—BHC	319868		1*	2		X	1 (0.454)
gamma—BHC	58899	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1alpha, 2alpha,3beta,4alpha,5alpha,6beta)- Hexachlorocyclohexane (gamma isomer) Lindane	1	1,2,4	U129	X	1 (0.454)
2,2'-Bioxirane	1464535	1,2:3,4-Diepoxybutane	1*	4	U085	A	10 (4.54)
(1,1'-Biphenyl)-4,4'diamine	92875	Benzidine	1*	2,4	U021	X	1 (0.454)
[1,1'-Biphenyl]-4,4'diamine,3,3'dichloro-	91941	3,3'-Dichlorobenzidine	1*	2,4	U073	X	1 (0.454)
[1,1'-Biphenyl]-4,4'diamine,3,3'dimethoxy-	119904	3,3'-Dimethoxybenzidine	1*	4	U091	B	100 (45.4)
[1,1'Biphenyl]-4,4'-diamine,3,3'-dimethyl-	119937	3,3'-Dimethylbenzidine	1*	4	U095	A	10 (4.54)
Bis (2-chloroethyl) ether	111444	Dichloroethyl ether Ethane,1,1'-oxybis[2-chloro-	1*	2,4	U025	A	10 (4.54)
Bis(2-chloroethoxy) methane	111911	Dichloromethoxy ethane Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-	1*	2,4	U024	C	1000 (454)
Bis (2-ethylhexyl)phthalate	117817	Diethylhexyl phthalate 1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester	1*	2,4	U028	B	100 (45.4)
Bromoacetone	598312	2-Propanone, 1-bromo-	1*	4	P017	C	1000 (454)
Bromoform	75252	Methane, tribromo-	1*	2,4	U225	B	100 (45.4)
4-Bromophenyl phenyl ether	101553	Benzene, 1-bromo-4-phenoxy-	1*	2,4	U030	B	100 (45.4)
Brucine	357573	Strychnidin-10-one, 2,3-dimethoxy-	1*	4	P018	B	100 (45.4)
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87683	Hexachlorobutadiene	1*	2,4	U128	X	1 (0.454)
1-Butanamine, N-butyl-N-nitroso-	924163	N-Nitrosodi-n-butylamine	1*	4	U172	A	10 (4.54)
1-Butanol	71363	n-Butyl alcohol	1*	4	U031	D	5000 (2270)
2-Butanone	78933	Methyl ethyl ketone (MEK)	1*	4	U159	D	5000 (2270)
2-Butanone peroxide	1338234	Methyl ethyl ketone peroxide	1*	4	U160	A	10 (4.54)
2-Butanone, 3,3-dimethyl-1-(methylthio)-, O[(methylamino)carbonyl] oxime.	39196184	Thiofanox	1*	4	P045	B	100 (45.4)
2-Butenal	123739 4170303	Crotonaldehyde	100	1,4	U053	B	100 (45.4)
2-Butene, 1,4-dichloro-	764410	1,4-Dichloro-2-butene	1*	4	U074	X	1 (0.454)
2-Butenoic acid, 2-methyl-, 7[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303344	Lasiocarpine	1*	4	U143	A	10 (4.54)
Butyl acetate	123864		5000	1		D	5000 (2270)
iso-Butyl acetate	110190						
sec-Butyl acetate	105464						
tert-Butyl acetate	540885						

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
n-Butyl alcohol	71363	1-Butanol	1*	4	U031	D	5000 (2270)
Butylamine	109739		1000	1		C	1000 (454)
iso-Butylamine	78819						
sec-Butylamine	513495						
	13952846						
tert-Butylamine	75649						
Butyl benzyl phthalate	85687		1*	2		B	100 (45.4)
n-Butyl phthalate	84742	Di-n-butyl phthalate	100	1,2,4	U069	A	10 (4.54)
		Dibutyl phthalate					
		1,2-Benzenedicarboxylic acid, dibutyl ester					
Butyric acid	107926		5000	1		D	5000 (2270)
iso-Butyric acid	79312						
Cacodylic acid	75605	Arsinic acid, dimethyl-	1*	4	U136	X	1 (0.454)
Cadmium ††	7440439		1*	2		A	10 (4.54)
Cadmium acetate	543908		100	1		A	10 (4.54)
CADMIUM AND COMPOUNDS	N.A.		1*	2			••
Cadmium bromide	7789426		100	1		A	10 (4.54)
Cadmium chloride	10108642		100	1		A	10 (4.54)
Calcium arsenate	7778441		1000	1		X	1 (0.454)
Calcium arsenite	52740166		1000	1		X	1 (0.454)
Calcium carbide	75207		5000	1		A	10 (4.54)
Calcium chromate	13765190	Chromic acid H2CrO4, calcium salt	1000	1,4	U032	A	10 (4.54)
Calcium cyanide	592018	Calcium cyanide Ca(CN)2	10	1,4	P021	A	10 (4.54)
Calcium cyanide Ca(CN)2	592018	Calcium cyanide	10	1,4	P021	A	10 (4.54)
Calcium dodecylbenzenesulfonate	26264062		1000	1		C	1000 (454)
Calcium hypochlorite	7778543		100	1		A	10 (4.54)
Camphene, octachloro-	8001352	Toxaphene	1	1,2,4	P123	X	1 (0.454)
Captan	133062		10	1		A	10 (4.54)
Carbamic acid, ethyl ester	51796	Ethyl carbamate (urethane)	1*	4	U238	B	100 (45.4)
Carbamic acid, methylnitroso-, ethyl ester	615532	N-Nitroso-N-methylurethane	1*	4	U178	X	1 (0.454)
Carbamic chloride, dimethyl-	79447	Dimethylcarbamoyl chloride	1*	4	U097	X	1 (0.454)
Carbamodithioic acid, 1,2-ethanediylbis, salts & esters	111546	Ethylenebisdithiocarbamic acid, salts & esters	1*	4	U114	D	5000 (2270)
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	2303164	Diallate	1*	4	U062	B	100 (45.4)
Carbaryl	63252		100	1		B	100 (45.4)
Carbofuran	1563662		10	1		A	10 (4.54)
Carbon disulfide	75150		5000	1,4	P022	B	100 (45.4)
Carbon oxyfluoride	353504	Carbonic difluoride	1*	4	U033	C	1000 (454)
Carbon tetrachloride	56235	Methane, tetrachloro-	5000	1,2,4	U211	A	10 (4.54)
Carbonic acid, dithallium(1+) salt	6533739	Thallium(I) carbonate	1*	4	U215	B	100 (45.4)
Carbonic dichloride	75445	Phosgene	5000	1,4	P095	A	10 (4.54)
Carbonic difluoride	353504	Carbon oxyfluoride	1*	4	U033	C	1000 (454)
Carbonochloridic acid, methyl ester	79221	Methyl chlorocarbonate	1*	4	U156	C	1000 (454)
		Methyl chloroformate					
Chloral	75876	Acetaldehyde, trichloro-	1*	4	U034	D	5000 (2270)
Chlorambucil	305033	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	1*	4	U035	A	10 (4.54)
Chlordane	57749	Chlordane, alpha & gamma isomers	1	1,2,4	U036	X	1 (0.454)
		Chlordane, technical					
		4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-					
CHLORDANE (TECHNICAL MIXTURE AND METABOLITES)	N.A.		1*	2			••
Chlordane, alpha & gamma isomers	57749	Chlordane	1	1,2,4	U036	X	1 (0.454)
		Chlordane, technical					
		4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-					
Chlordane, technical	57749	Chlordane	1	1,2,4	U036	X	1 (0.454)
		Chlordane, alpha & gamma isomers					
		4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-					
CHLORINATED BENZENES	N.A.		1*	2			••
CHLORINATED ETHANES	N.A.		1*	2			••
CHLORINATED NAPHTHALENE	N.A.		1*	2			••
CHLORINATED PHENOLS	N.A.		1*	2			••
Chlorine	7782505		10	1		A	10 (4.54)
Chlornaphazine	494031	Naphthalenamine, N,N'-bis(2-chloroethyl)-	1*	4	U026	B	100 (45.4)
Chloroacetaldehyde	107200	Acetaldehyde, chloro-	1*	4	P023	C	1000 (454)
CHLOROALKYL ETHERS	N.A.		1*	2			••
p-Chloroaniline	106478	Benzenamine, 4-chloro-	1*	4	P024	C	1000 (454)
Chlorobenzene	108907	Benzene, chloro-	100	1,2,4	U037	B	100 (45.4)
Chlorobenzilate	510156	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	1*	4	U038	A	10 (4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
4-Chloro-m-cresol	59507	p-Chloro-m-cresol	1*	2,4	U039	D	5000 (2270)
p-Chloro-m-cresol	59507	Phenol, 4-chloro-3-methyl- Phenol, 4-chloro-3-methyl- 4-Chloro-m-cresol	1*	2,4	U039	D	5000 (2270)
Chlorodibromomethane	124481		1*	2		B	100 (45.4)
Chloroethane	75003		1*	2		B	100 (45.4)
2-Chloroethyl vinyl ether	110758	Ethene, 2-chloroethoxy-	1*	2,4	U042	C	1000 (454)
Chloroform	67663	Methane, trichloro-	5000	1,2,4	U044	A	10 (4.54)
Chloromethyl methyl ether	107302	Methane, chloromethoxy-	1*	4	U046	A	10 (4.54)
beta-Chloronaphthalene	91587	Naphthalene, 2-chloro- 2-Chloronaphthalene	1*	2,4	U047	D	5000 (2270)
2-Chloronaphthalene	91587	beta-Chloronaphthalene Naphthalene, 2-chloro-	1*	2,4	U047	D	5000 (2270)
2-Chlorophenol	95578	o-Chlorophenol Phenol, 2-chloro-	1*	2,4	U048	B	100 (45.4)
o-Chlorophenol	95578	Phenol, 2-chloro- 2-Chlorophenol	1*	2,4	U048	B	100 (45.4)
4-Chlorophenyl phenyl ether	7005723		1*	2		D	5000 (2270)
1-(o-Chlorophenyl)thiourea	5344821	Thiourea, (2-chlorophenyl)-	1*	4	P026	B	100 (45.4)
3-Chloropropionitrile	542767	Propanenitrile, 3-chloro-	1*	4	P027	C	1000 (454)
Chlorosulfonic acid	7790945		1000	1		C	1000 (454)
4-Chloro-o-toluidine, hydrochloride	3165933	Benzenamine, 4-chloro-2-methyl-, hydrochloride	1*	4	U049	B	100 (45.4)
Chlorpyrifos	2921882		1	1		X	1 (0.454)
Chromic acetate	1066304		1000	1		C	1000 (454)
Chromic acid	11115745 7738945		1000	1		A	10 (4.54)
Chromic acid H2CrO4, calcium salt	13765190	Calcium chromate	1000	1,4	U032	A	10 (4.54)
Chromic sulfate	10101538		1000	1		C	1000 (454)
Chromium ††	7440473		1*	2		D	5000 (2270) **
CHROMIUM AND COMPOUNDS	N.A.		1*	2			
Chromous chloride	10049055		1000	1		C	1000 (454)
Chrysene	218019	1,2-Benzphenanthrene	1*	2,4	U050	B	100 (45.4)
Cobaltous bromide	7789437		1000	1		C	1000 (454)
Cobaltous formate	544183		1000	1		C	1000 (454)
Cobaltous sulfamate	14017415		1000	1		C	1000 (454)
Coke Oven Emissions	N.A.		1*	3		X	1 (0.454)
Copper cyanide CuCN	544923	Copper cyanide	1*	4	P029	A	10 (4.54)
Copper ††	7440508		1*	2		D	5000 (2270) **
COPPER AND COMPOUNDS	N.A.		1*	2			
Copper cyanide	544923	Copper cyanide CuCN	1*	4	P029	A	10 (4.54)
Coumaphos	56724		10	1		A	10 (4.54)
Creosote	8001589		1*	4	U051	X	1 (0.454)
Cresol(s)	1319773	Cresylic acid Phenol, methyl-	1000	1,4	U052	C	1000 (454)
m-Cresol	108394	m-Cresylic acid					
o-Cresol	95487	o-Cresylic acid					
p-Cresol	106445	p-Cresylic acid					
Cresylic acid	1319773	Cresol(s) Phenol, methyl-	1000	1,4	U052	C	1000 (454)
m-Cresol	108394	m-Cresylic acid					
o-Cresol	95487	o-Cresylic acid					
p-Cresol	106445	p-Cresylic acid					
Crotonaldehyde	123739 4170303	2-Butenal	100	1,4	U053	B	100 (45.4)
Cumene	98828	Benzene, 1-methylethyl-	1*	4	U055	D	5000 (2270)
Cupric acetate	142712		100	1		B	100 (45.4)
Cupric acetoarsenite	12002038		100	1		X	1 (0.454)
Cupric chloride	7447394		10	1		A	10 (4.54)
Cupric nitrate	3251238		100	1		B	100 (45.4)
Cupric oxalate	5893663		100	1		B	100 (45.4)
Cupric sulfate	7758987		10	1		A	10 (4.54)
Cupric sulfate, ammoniated	10380297		100	1		B	100 (45.4)
Cupric tartrate	815827		100	1		B	100 (45.4)
CYANIDES	N.A.		1*	2			**
Cyanides (soluble salts and complexes) not otherwise specified	57125		1*	4	P030	A	10 (4.54)
Cyanogen	460195	Ethanedinitrile	1*	4	P031	B	100 (45.4)
Cyanogen bromide	506683	Cyanogen bromide (CN)Br	1*	4	U246	C	1000 (454)
Cyanogen bromide (CN)Br	506683	Cyanogen bromide	1*	4	U246	C	1000 (454)
Cyanogen chloride	506774	Cyanogen chloride (CN)Cl	10	1,4	P033	A	10 (4.54)
Cyanogen chloride (CN)Cl	506774	Cyanogen chloride	10	1,4	P033	A	10 (4.54)
2,5-Cyclohexadiene-1,4-dione	106514	p-Benzoquinone	1*	4	U197	A	10 (4.54)
Cyclohexane	110827	Benzene, hexahydro-	1000	1,4	U056	C	1000 (454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha, 6beta)-	58899	gamma—BHC Hexachlorocyclohexane (gamma isomer) Lindane	1	1,2,4	U129	X	1 (0.454)
Cyclohexanone	108941		1*	4	U057	D	5000 (2270)
2-Cyclohexyl-4,6-dinitrophenol	131895	Phenol, 2-cyclohexyl-4,6-dinitro-	1*	4	P034	B	100 (45.4)
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77474	Hexachlorocyclopentadiene	1	1,2,4	U130	A	10 (4.54)
Cyclophosphamide	50180	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-,2-oxide	1*	4	U058	A	10 (4.54)
2,4-D Acid	94757	Acetic acid (2,4-dichlorophenoxy)-2,4-D, salts and esters	100	1,4	U240	B	100 (45.4)
2,4-D Ester	94111 94791 94804 1320189 1928387 1928616 1929733 2971382 25168267 53467111		100	1		B	100 (45.4)
2,4-D, salts and esters	94757	Acetic acid (2,4-dichlorophenoxy)-2,4-D Acid	100	1,4	U240	B	100 (45.4)
Daunomycin	20830813	5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6- trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10- tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	1*	4	U059	A	10 (4.54)
DDD	72548	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- TDE 4,4' DDD	1	1,2,4	U060	X	1 (0.454)
4,4' DDD	72548	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- DDD TDE	1	1,2,4	U060	X	1 (0.454)
DDE	72559	4,4' DDE	1*	2		X	1 (0.454)
4,4' DDE	72559	DDE	1*	2		X	1 (0.454)
DDT	50293	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- 4,4'DDT	1	1,2,4	U061	X	1 (0.454)
4,4'DDT	50293	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- DDT	1	1,2,4	U061	X	1 (0.454)
DDT AND METABOLITES	N.A.		1*	2			**
Diallate	2303164	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	1*	4	U062	B	100 (45.4)
Diazinon	333415		1	1		X	1 (0.454)
Dibenz[a,h]anthracene	53703	Dibenzo[a,h]anthracene 1,2:5,6-Dibenzanthracene	1*	2,4	U063	X	1 (0.454)
1,2:5,6-Dibenzanthracene	53703	Dibenz[a,h]anthracene Dibenzo[a,h]anthracene	1*	2,4	U063	X	1 (0.454)
Dibenzo[a,h]anthracene	53703	Dibenz[a,h]anthracene 1,2:5,6-Dibenzanthracene	1*	2,4	U063	X	1 (0.454)
Dibenz[a,i]pyrene	189559	Benzo[rst]pentaphene	1*	4	U064	A	10 (4.54)
1,2-Dibromo-3-chloropropane	96128	Propane, 1,2-dibromo-3-chloro-	1*	4	U066	X	1 (0.454)
Dibutyl phthalate	84742	Di-n-butyl phthalate n-Butyl phthalate 1,2-Benzenedicarboxylic acid, dibutyl ester	100	1,2,4	U069	A	10 (4.54)
Di-n-butyl phthalate	84742	Dibutyl phthalate n-Butyl phthalate 1,2-Benzenedicarboxylic acid, dibutyl ester	100	1,2,4	U069	A	10 (4.54)
Dicamba	1918009		1000	1		C	1000 (454)
Dichlobenil	1194656		1000	1		B	100 (45.4)
Dichlone	117806		1	1		X	1 (0.454)
Dichlorobenzene	25321226		100	1		B	100 (45.4)
1,2-Dichlorobenzene	95501	Benzene, 1,2-dichloro- o-Dichlorobenzene	100	1,2,4	U070	B	100 (45.4)
1,3-Dichlorobenzene	541731	Benzene, 1,3-dichloro m-Dichlorobenzene	1*	2,4	U071	B	100 (45.4)
1,4-Dichlorobenzene	106467	Benzene, 1,4-dichloro p-Dichlorobenzene	100	1,2,4	U072	B	100 (45.4)
m-Dichlorobenzene	541731	Benzene, 1,3-dichloro 1,3-Dichlorobenzene	1*	2,4	U071	B	100 (45.4)
o-Dichlorobenzene	95501	Benzene, 1,2-dichloro 1,2-Dichlorobenzene	100	1,2,4	U070	B	100 (45.4)
p-Dichlorobenzene	106467	Benzene,1,4-dichloro 1,4-Dichlorobenzene	100	1,2,4	U072	B	100 (45.4)
DICHLOROBENZIDINE	N.A.		1*	2			**
3,3'-Dichlorobenzidine	91941	[1,1'-Biphenyl]-4,4'diamine,3,3'dichloro-	1*	2,4	U073	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Dichlorobromomethane	75274		1*	2		D	5000 (2270)
1,4-Dichloro-2-butene	764410	2-Butene, 1,4-dichloro-	1*	4	U074	X	1 (0.454)
Dichlorodifluoromethane	75718	Methane, dichlorodifluoro-	1*	4	U075	D	5000 (2270)
1,1-Dichloroethane	75343	Ethane, 1,1-dichloro- Ethylidene dichloride	1*	2,4	U076	C	1000 (454)
1,2-Dichloroethane	107062	Ethane, 1,2-dichloro- Ethylene dichloride	5000	1,2,4	U077	B	100 (45.4)
1,1-Dichloroethylene	75354	Ethene, 1,1-dichloro- Vinylidene chloride	5000	1,2,4	U078	B	100 (45.4)
1,2-Dichloroethylene	156605	Ethene, 1,2-dichloro- (E)	1*	2,4	U079	C	1000 (454)
Dichloroethyl ether	111444	Bis (2-chloroethyl) ether Ethane, 1,1'-oxybis[2-chloro-	1*	2,4	U025	A	10 (4.54)
Dichloroisopropyl ether	108601	Propane, 2,2'-oxybis[2-chloro-	1*	2,4	U027	C	1000 (454)
Dichloromethoxy ethane	111911	Bis(2-chloroethoxy) methane Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-	1*	2,4	U024	C	1000 (454)
Dichloromethyl ether	542881	Methane, oxybis(chloro-	1*	4	P016	A	10 (4.54)
2,4-Dichlorophenol	120832	Phenol, 2,4-dichloro-	1*	2,4	U081	B	100 (45.4)
2,6-Dichlorophenol	87650	Phenol, 2,6-dichloro-	1*	4	U082	B	100 (45.4)
Dichlorophenylarsine	696286	Arsonous dichloride, phenyl-	1*	4	P036	X	1 (0.454)
Dichloropropane	26638197		5000	1		C	1000 (454)
1,1-Dichloropropane	78999						
1,3-Dichloropropane	142289						
1,2-Dichloropropane	78875	Propane, 1,2-dichloro- Propylene dichloride	5000	1,2,4	U083	C	1000 (454)
Dichloropropane—Dichloropropene (mixture)	8003198		5000	1		B	100 (45.4)
Dichloropropene	26952238		5000	1		B	100 (45.4)
2,3-Dichloropropene	78886						
1,3-Dichloropropene	542756	1-Propene, 1,3-dichloro-	5000	1,2,4	U084	B	100 (45.4)
2,2-Dichloropropionic acid	75990		5000	1		D	5000 (2270)
Dichlorvos	62737		10	1		A	10 (4.54)
Dicofol	115322		5000	1		A	10 (4.54)
Dieldrin	60571	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-	1	1,2,4	P037	X	1 (0.454)
1,2:3,4-Diepoxybutane	1464535	2,2'-Bioxirane	1*	4	U085	A	10 (4.54)
Diethylamine	109897		1000	1		B	1000 (45.4)
Diethylarsine	692422	Arsine, diethyl-	1*	4	P038	X	1 (0.454)
1,4-Diethylenedioxide	123911	1,4-Dioxane	1*	4	U108	B	100 (45.4)
Diethylhexyl phthalate	117817	Bis (2-ethylhexyl)phthalate 1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester	1*	2,4	U028	B	100 (45.4)
N,N'-Diethylhydrazine	1615801	Hydrazine, 1,2-diethyl-	1*	4	U086	A	10 (4.54)
O,O-Diethyl S-methyl dithiophosphate	3288582	Phosphorodithioic acid, O,O-diethyl S-methyl ester	1*	4	U087	D	5000 (2270)
Diethyl-p-nitrophenyl phosphate	311455	Phosphoric acid, diethyl 4-nitrophenyl ester	1*	4	P041	B	100 (45.4)
Diethyl phthalate	84662	1,2-Benzenedicarboxylic acid, diethyl ester	1*	2,4	U088	C	1000 (454)
O,O-Diethyl O-pyrazinyl phosphorothioate	297972	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	1*	4	P040	B	100 (45.4)
Diethylstilbestrol	56531	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)	1*	4	U089	X	1 (0.454)
Dihydrosafrole	94586	1,3-Benzodioxole, 5-propyl-	1*	4	U090	A	10 (4.54)
Diisopropylfluorophosphate	55914	Phosphorofluoridic acid, bis(1-methylethyl) ester	1*	4	P043	B	100 (45.4)
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,	309002	Aldrin	1	1,2,4	P004	X	1 (0.454)
8abeta)-1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro, (1alpha,4alpha,4abeta,5abeta,8beta,	465736	Isodrin	1*	4	P060	X	1 (0.454)
8abeta)-2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,	60571	Dieldrin	1	1,2,4	P037	X	1 (0.454)
6aalpha,7beta,7aalpha)-2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,	72208	Endrin Endrin, & metabolites	1	1,2,4	P051	X	1 (0.454)
6abeta,7beta,7aalpha)-Dimethoate	60515	Phosphorodithioic acid, O,O-dimethyl S-[2(methylamino)-2-oxoethyl] ester	1*	4	P044	A	10 (4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
3,3'-Dimethoxybenzidine	119904	[1,1'-Biphenyl]-4,4'diamine,3,3'dimethoxy-	1*	4	U091	B	100 (45.4)
Dimethylamine	124403	Methanamine, N-methyl-	1000	1,4	U092	C	1000 (454)
p-Dimethylaminoazobenzene	60117	Benzenamine, N,N-dimethyl-4-(phenylazo-)	1*	4	U093	A	10 (4.54)
7,12-Dimethylbenz[a]anthracene	57976	Benz[a]anthracene, 7,12-dimethyl-	1*	4	U094	X	1 (0.454)
3,3'-Dimethylbenzidine	119937	[1,1'Biphenyl]-4,4'-diamine,3,3'-dimethyl-	1*	4	U095	A	10 (4.54)
alpha,alpha-Dimethylbenzylhydroperoxide	80159	Hydroperoxide, 1-methyl-1-phenylethyl-	1*	4	U096	A	10 (4.54)
Dimethylcarbamoyl chloride	79447	Carbamic chloride, dimethyl-	1*	4	U097	X	1 (0.454)
1,1-Dimethylhydrazine	57147	Hydrazine, 1,1-dimethyl-	1*	4	U098	A	10 (4.54)
1,2-Dimethylhydrazine	540738	Hydrazine, 1,2-dimethyl-	1*	4	U099	X	1 (0.454)
alpha,alpha-Dimethylphenethylamine	122098	Benzeneethanamine, alpha,alpha-dimethyl-	1*	4	P046	D	5000 (2270)
2,4-Dimethylphenol	105679	Phenol, 2,4-dimethyl-	1*	2,4	U101	B	100 (45.4)
Dimethyl phthalate	131113	1,2-Benzenedicarboxylic acid, dimethyl ester	1*	2,4	U102	D	5000 (2270)
Dimethyl sulfate	77781	Sulfuric acid, dimethyl ester	1*	4	U103	B	100 (45.4)
Dinitrobenzene (mixed)	25154545		1000	1		B	100 (45.4)
m-Dinitrobenzene	99650						
o-Dinitrobenzene	528290						
p-Dinitrobenzene	100254						
4,6-Dinitro-o-cresol and salts	534521	Phenol, 2-methyl-4,6-dinitro-	1*	2,4	P047	A	10 (4.54)
Dinitrophenol	25550587		1000	1		A	10 (4.54)
2,5-Dinitrophenol	329715						
2,6-Dinitrophenol	573568					A	
2,4-Dinitrophenol	51285	Phenol, 2,4-dinitro-	1000	1,2,4	P048	A	10 (4.54)
Dinitrotoluene	25321146		1000	1,2		A	10 (4.54)
3,4-Dinitrotoluene	610399						
2,4-Dinitrotoluene	121142	Benzene, 1-methyl-2,4-dinitro-	1000	1,2,4	U105	A	10 (4.54)
2,6-Dinitrotoluene	606202	Benzene, 2-methyl-1,3-dinitro-	1000	1,2,4	U106	B	100 (45.4)
Dinoseb	88857	Phenol, 2-(1-methylpropyl)-4,6-dinitro	1*	4	P020	C	1000 (454)
Di-n-octyl phthalate	117840	1,2-Benzenedicarboxylic acid, dioctyl ester	1*	2,4	U107	D	5000 (2270)
1,4-Dioxane	123911	1,4-Diethylenedioxide	1*	4	U108	B	100 (45.4)
DIPHENYLHYDRAZINE	N.A.		1*	2			**
1,2-Diphenylhydrazine	122667	Hydrazine, 1,2-diphenyl-	1*	2,4	U109	A	10 (4.54)
Diphosphoramide, octamethyl-	152169	Octamethylpyrophosphoramide	1*	4	P085	B	100 (45.4)
Diphosphoric acid, tetraethyl ester	107493	Tetraethyl pyrophosphate	100	1,4	P111	A	10 (4.54)
Dipropylamine	142847	1-Propanamine, N-propyl-	1*	4	U110	D	5000 (2270)
Di-n-propylnitrosamine	621647	1-Propanamine, N-nitroso-N-propyl-	1*	2,4	U111	A	10 (4.54)
Diquat	85007		1000	1		C	1000 (454)
	2764729						
Disulfoton	298044	Phosphorodithioic acid, o,o-diethyl S-[2-(ethylthio)ethyl]ester	1	1,4	P039	X	1 (0.454)
Dithiobiuret	541537	Thioimidodicarbonic diamide [(H2N) C(S)]2NH	1*	4	P049	B	100 (45.4)
Diuron	330541		100	1		B	100 (45.4)
Dodecylbenzenesulfonic acid	27176870		1000	1		C	1000 (454)
Endosulfan	115297	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	1	1,2,4	P050	X	1 (0.454)
alpha - Endosulfan	959988		1*	2		X	1 (0.454)
beta - Endosulfan	33213659		1*	2		X	1 (0.454)
ENDOSALFAN AND METABOLITES	N.A.		1*	2			**
Endosulfan sulfate	1031078		1*	2		X	1 (0.454)
Endothall	145733	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	1*	4	P088	C	1000 (454)
Endrin	72208	Endrin, & metabolites 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9 -hexachloro-1a,2,2a,3, 6,6a,7,7a-octa-hydro-, (1aalpha, 2beta,2abeta,3alpha,6alpha, 6abeta,7beta, 7aalpha)-	1	1,2,4	P051	X	1 (0.454)
Endrin aldehyde	7421934		1*	2		X	1 (0.454)
ENDRIN AND METABOLITES	N.A.		1*	2			**
Endrin, & metabolites	72208	Endrin 2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3, 6,6a,7,7a-octa-hydro-, (1aalpha, 2beta,2abeta,3alpha,6alpha, 6abeta,7beta, 7aalpha)-	1	1,2,4	P051	X	1 (0.454)
Epichlorohydrin	106898	Oxirane, (chloromethyl)-	1000	1,4	U041	B	100 (45.4)
Epinephrine	51434	1,2-Benzenediol,4-[1-hydroxy-2-(methylamino)ethyl]-	1*	4	P042	C	1000 (454)
Ethanal	75070	Acetaldehyde	1000	1,4	U001	C	1000 (454)
Ethanamine, N-ethyl-N-nitroso-	55185	N-Nitrosodiethylamine	1*	4	U174	X	1 (0.454)
1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91805	Methapyrilene	1*	4	U155	D	5000 (2270)
Ethane, 1,2-dibromo-	106934	Ethylene dibromide	1000	1,4	U067	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Ethane, 1,1-dichloro-	75343	Ethylidene dichloride 1,1-Dichloroethane	1*	2,4	U076	C	1000 (454)
Ethane, 1,2-dichloro-	107062	Ethylene dichloride 1,2-Dichloroethane	5000	1,2,4	U077	B	100 (45.4)
Ethanedinitrile	460195	Cyanogen	1*	4	P031	B	100 (45.4)
Ethane, hexachloro-	67721	Hexachloroethane	1*	2,4	U131	B	100 (45.4)
Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-	111911	Bis(2-chloroethoxy) methane Dichloromethoxy ethane	1*	2,4	U024	C	1000 (454)
Ethane, 1,1'-oxybis-	60297	Ethyl ether	1*	4	U117	B	100 (45.4)
Ethane, 1,1'-oxybis[2-chloro-	111444	Bis (2-chloroethyl) ether Dichloroethyl ether	1*	2,4	U025	A	10 (4.54)
Ethane, pentachloro-	76017	Pentachloroethane	1*	4	U184	A	10 (4.54)
Ethane, 1,1,1,2-tetrachloro-	630206	1,1,1,2-Tetrachloroethane	1*	4	U208	B	100 (45.4)
Ethane, 1,1,2,2-tetrachloro-	79345	1,1,2,2-Tetrachloroethane	1*	2,4	U209	B	100 (45.4)
Ethanethioamide	62555	Thioacetamide	1*	4	U218	A	10 (4.54)
Ethane, 1,1,1-trichloro-	71556	Methyl chloroform 1,1,1-Trichloroethane	1*	2,4	U226	C	1000 (454)
Ethane, 1,1,2-trichloro-	79005	1,1,2-Trichloroethane	1*	2,4	U227	B	100 (45.4)
Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester	16752775	Methomyl	1*	4	P066	B	100 (45.4)
Ethanol, 2-ethoxy-	110805	Ethylene glycol monoethyl ether	1*	4	U359	C	1000 (454)
Ethanol, 2,2'-(nitrosoimino)bis-	1116547	N-Nitrosodiethanolamine	1*	4	U173	X	1 (0.454)
Ethanone, 1-phenyl-	98862	Acetophenone	1*	4	U004	D	5000 (2270)
Ethene, chloro-	75014	Vinyl chloride	1*	2,3,4	U043	X	1 (0.454)
Ethene, 2-chloroethoxy-	110758	2-Chloroethyl vinyl ether	1*	2,4	U042	C	1000 (454)
Ethene, 1,1-dichloro-	75354	Vinylidene chloride 1,1-Dichloroethylene	5000	1,2,4	U078	B	100 (45.4)
Ethene, 1,2-dichloro- (E)	156605	1,2-Dichloroethylene	1*	2,4	U079	C	1000 (454)
Ethene, tetrachloro-	127184	Perchloroethylene Tetrachloroethene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
Ethene, trichloro-	79016	Trichloroethene Trichloroethylene	1000	1,2,4	U228	B	100 (45.4)
Ethion	563122		10	1		A	10 (4.54)
Ethyl acetate	141786	Acetic acid, ethyl ester	1*	4	U112	D	5000 (2270)
Ethyl acrylate	140885	2-Propenoic acid, ethyl ester	1*	4	U113	C	1000 (454)
Ethylbenzene	100414		1000	1,2		C	1000 (454)
Ethyl carbamate (urethane)	51796	Carbamic acid, ethyl ester	1*	4	U238	B	100 (45.4)
Ethyl cyanide	107120	Propanenitrile	1*	4	P101	A	10 (4.54)
Ethylenebisdithiocarbamic acid, salts & esters	111546	Carbamodithioic acid, 1,2-ethanediylbis, salts & esters	1*	4	U114	D	5000 (2270)
Ethylenediamine	107153		1000	1		D	5000 (2270)
Ethylenediamine-tetraacetic acid (EDTA)	60004		5000	1		D	5000 (2270)
Ethylene dibromide	106934	Ethane, 1,2-dibromo-	1000	1,4	U067	X	1 (0.454)
Ethylene dichloride	107062	Ethane, 1,2-dichloro- 1,2-Dichloroethane	5000	1,2,4	U077	B	100 (45.4)
Ethylene glycol monoethyl ether	110805	Ethanol, 2-ethoxy-	1*	4	U359	C	1000 (454)
Ethylene oxide	75218	Oxirane	1*	4	U115	A	10 (4.54)
Ethylenethiourea	96457	2-Imidazolidinethione	1*	4	U116	A	10 (4.54)
Ethylenimine	151564	Aziridine	1*	4	P054	X	1 (0.454)
Ethyl ether	60297	Ethane, 1,1'-oxybis-	1*	4	U117	B	100 (45.4)
Ethylidene dichloride	75343	Ethane, 1,1-dichloro- 1,1-Dichloroethane	1*	2,4	U076	C	1000 (454)
Ethyl methacrylate	97632	2-Propenoic acid, 2-methyl-, ethyl ester	1*	4	U118	C	1000 (454)
Ethyl methanesulfonate	62500	Methanesulfonic acid, ethyl ester	1*	4	U119	X	1 (0.454)
Famphur	52857	Phosphorothioic acid, O,[4-[(di- methylamino) sulfonyl] phenyl] O,O-dimethyl ester	1*	4	P097	C	1000 (454)
Ferric ammonium citrate	1185575		1000	1		C	1000 (454)
Ferric ammonium oxalate	2944674		1000	1		C	1000 (454)
	55488874						
Ferric chloride	7705080		1000	1		C	1000 (454)
Ferric fluoride	7783508		100	1		B	100 (45.4)
Ferric nitrate	10421484		1000	1		C	1000 (454)
Ferric sulfate	10028225		1000	1		C	1000 (454)
Ferrous ammonium sulfate	10045893		1000	1		C	1000 (454)
Ferrous chloride	7758943		100	1		B	100 (45.4)
Ferrous sulfate	7720787		1000	1		C	1000 (454)
	7782630						
Fluoranthene	206440	Benzo[j,k]fluorene	1*	2,4	U120	B	100 (45.4)
Fluorene	86737		1*	2		D	5000 (2270)
Fluorine	7782414		1*	4	P056	A	10 (4.54)
Fluoroacetamide	640197	Acetamide, 2-fluoro-	1*	4	P057	B	100 (45.4)
Fluoroacetic acid, sodium salt	62748	Acetic acid, fluoro-, sodium salt	1*	4	P058	A	10 (4.54)
Formaldehyde	50000		1000	1,4	U122	B	100 (45.4)
Formic acid	64186		5000	1,4	U123	D	5000 (2270)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Fulminic acid, mercury(2+)salt	628864	Mercury fulminate	1*	4	P065	A	10 (4.54)
Fumaric acid	110178		5000	1		D	5000 (2270)
Furan	110009	Furfuran	1*	4	U124	B	100 (45.4)
Furan, tetrahydro-	109999	Tetrahydrofuran	1*	4	U213	C	1000 (454)
2-Furancarboxaldehyde	98011	Furfural	1000	1,4	U125	D	5000 (2270)
2,5-Furandione	108316	Maleic anhydride	5000	1,4	U147	D	5000 (2270)
Furfural	98011	2-Furancarboxaldehyde	1000	1,4	U125	D	5000 (2270)
Furfuran	110009	Furan	1*	4	U124	B	100 (45.4)
Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-	18883664	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino] Streptozotocin	1*	4	U206	X	1 (0.454)
D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-.	18883664	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)- Streptozotocin	1*	4	U206	X	1 (0.454)
Glycidylaldehyde	765344	Oxiranecarboxyaldehyde	1*	4	U126	A	10 (4.54)
Guanidine, N-methyl-N'-nitro-N-nitroso-	70257	MNNG	1*	4	U163	A	10 (4.54)
Guthion	86500		1	1		X	1 (0.454)
HALOETHERS	N.A.		1*	2			**
HALOMETHANES	N.A.		1*	2			**
Heptachlor	76448	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	1	1,2,4	P059	X	1 (0.454)
HEPTACHLOR AND METABOLITES	N.A.		1*	2			**
Heptachlor epoxide	1024573		1*	2		X	1 (0.454)
Hexachlorobenzene	118741	Benzene, hexachloro-	1*	2,4	U127	A	10 (4.54)
Hexachlorobutadiene	87683	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	1*	2,4	U128	X	1 (0.454)
HEXACHLOROCYCLOHEXANE (all isomers).	608731		1*	2			**
Hexachlorocyclohexane (gamma isomer)	58899	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha, 6beta)-gamma-BHC Lindane	1	1,2,4	U129	X	1 (0.454)
Hexachlorocyclopentadiene	77474	1,3-Cyclopentadiene,1,2,3,4,5,5-hexachloro-	1	1,2,4	U130	A	10 (4.54)
Hexachloroethane	67721	Ethane, hexachloro-	1*	2,4	U131	B	100 (45.4)
Hexachlorophene	70304	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	1*	4	U132	B	100 (45.4)
Hexachloropropene	1888717	1-Propene, 1,1,2,3,3,3-hexachloro-	1*	4	U243	C	1000 (454)
Hexaethyl tetraphosphate	757584	Tetraphosphoric acid, hexaethyl ester	1*	4	P062	B	100 (45.4)
Hydrazine	302012		1*	4	U133	X	1 (0.454)
Hydrazine, 1,2-diethyl-	1615801	N,N'-Diethylhydrazine	1*	4	U086	A	10 (4.54)
Hydrazine, 1,1-dimethyl-	57147	1,1-Dimethylhydrazine	1*	4	U098	A	10 (4.54)
Hydrazine, 1,2-dimethyl-	540738	1,2-Dimethylhydrazine	1*	4	U099	X	1 (0.454)
Hydrazine, 1,2-diphenyl-	122667	1,2-Diphenylhydrazine	1*	2,4	U109	A	10 (4.54)
Hydrazine, methyl-	60344	Methyl hydrazine	1*	4	P068	A	10 (4.54)
Hydrazinecarbothioamide	79196	Thiosemicarbazide	1*	4	P116	B	100 (45.4)
Hydrochloric acid	7647010	Hydrogen chloride	5000	1		D	5000 (2270)
Hydrocyanic acid	74908	Hydrogen cyanide	10	1,4	P063	A	10 (4.54)
Hydrofluoric acid	7664393	Hydrogen fluoride	5000	1,4	U134	B	100 (45.4)
Hydrogen chloride	7647010	Hydrochloric acid	5000	1		D	5000 (2270)
Hydrogen cyanide	74908	Hydrocyanic acid	10	1,4	P063	A	10 (4.54)
Hydrogen fluoride	7664393	Hydrofluoric acid	5000	1,4	U134	B	100 (45.4)
Hydrogen sulfide	7783064	Hydrogen sulfide H2S	100	1,4	U135	B	100 (45.4)
Hydrogen sulfide H2S	7783064	Hydrogen sulfide	100	1,4	U135	B	100 (45.4)
Hydroperoxide, 1-methyl-1-phenylethyl-	80159	alpha,alpha-Dimethylbenzylhydroperoxide	1*	4	U096	A	10 (4.54)
2-Imidazolidinethione	96457	Ethylenethiourea	1*	4	U116	A	10 (4.54)
Indeno(1,2,3-cd)pyrene	193395	1,10-(1,2-Phenylene)pyrene	1*	2,4	U137	B	100 (45.4)
1,3-Isobenzofurandione	85449	Phthalic anhydride	1*	4	U190	D	5000 (2270)
Isobutyl alcohol	78831	1-Propanol, 2-methyl-	1*	4	U140	D	5000 (2270)
Isodrin	465736	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro, (1alpha,4alpha,4abeta,5beta, 8beta,8abeta)-	1*	4	P060	X	1 (0.454)
Isophorone	78591		1*	2		D	5000 (2270)
Isoprene	78795		1000	1		B	100 (45.4)
Isopropanolamine dodecylbenzenesulfonate	42504461		1000	1		C	1000 (454)
Isosafrole	120581	1,3-Benzodioxole, 5-)1-propenyl)-	1*	4	U141	B	100 (45.4)
3(2H)-Isoxazolone, 5-(aminomethyl)-	2763964	Muscimol 5-(Aminomethyl)-3-isoxazolol	1*	4	P007	C	1000 (454)
Kepone	143500	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	1	1,4	U142	X	1 (0.454)
Lasiocarpine	303344	2-Butenoic acid, 2-methyl-, 7[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z), 7(2S*,3R*),7aalpha]]-	1*	4	U143	A	10 (4.54)
Lead ††	7439921		1*	2			#

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Lead acetate	301042	Acetic acid, lead(2+) salt	5000	1,4	U144		#
LEAD AND COMPOUNDS	N.A.		1*	2			**
Lead arsenate	7784409		5000	1		X	1 (0.454)
	7645252						
	10102484						
Lead, bis(acetato-O)tetrahydroxytri	1335326	Lead subacetate	1*	4	U146	B	100 (45.4)
Lead chloride	7758954		5000	1		B	100 (45.4)
Lead fluoborate	13814965		5000	1		B	100 (45.4)
Lead fluoride	7783462		1000	1		B	100 (45.4)
Lead iodide	10101630		5000	1		B	100 (45.4)
Lead nitrate	10099748		5000	1		B	100 (45.4)
Lead phosphate	7446277	Phosphoric acid, lead(2+) salt (2:3)	1*	4	U145		#
Lead stearate	7428480		5000	1		D	5000# (2270)
	1072351						
	52652592						
	56189094						
Lead subacetate	1335326	Lead, bis(acetato-O)tetrahydroxytri	1*	4	U146	B	100 (45.4)
Lead sulfate	15739807		5000	1		B	100 (45.4)
	7446142						
Lead sulfide	1314870		5000	1		D	5000# (2270)
Lead thiocyanate	592870		5000	1		B	100 (45.4)
Lindane	58899	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	1	1,2,4	U129	X	1 (0.454)
		gamma-BHC					
		Hexachlorocyclohexane (gamma isomer)					
Lithium chromate	14307358		1000	1		A	10 (4.54)
Malathion	121755		10	1		B	100 (45.4)
Maleic acid	110167		5000	1		D	5000 (2270)
Maleic anhydride	108316	2,5-Furandione	5000	1,4	U147	D	5000 (2270)
Maleic hydrazide	123331	3,6-Pyridazinedione, 1,2-dihydro-	1*	4	U148	D	5000 (2270)
Malononitrile	109773	Propanedinitrile	1*	4	U149	C	1000 (454)
Melphalan	148823	L-Phenylalanine, 4-[bis(2-chloroethyl) aminol]	1*	4	U150	X	1 (0.454)
Mercaptodimethur	2032657		100	1		A	10 (4.54)
Mercuric cyanide	592041		1	1		X	1 (0.454)
Mercuric nitrate	10045940		10	1		A	10 (4.54)
Mercuric sulfate	7783359		10	1		A	10 (4.54)
Mercuric thiocyanate	592858		10	1		A	10 (4.54)
Mercurous nitrate	10415755		10	1		A	10 (4.54)
	7782867						
Mercury	7439976		1*	2,3,4	U151	X	1 (0.454)
MERCURY AND COMPOUNDS	N.A.		1*	2			**
Mercury, (acetate-O)phenyl-	62384	Phenylmercury acetate	1*	4	P092	B	100 (45.4)
Mercury fulminate	628864	Fulminic acid, mercury(2+)salt	1*	4	P065	A	10 (4.54)
Methacrylonitrile	126987	2-Propenenitrile, 2-methyl-	1*	4	U152	C	1000 (454)
Methanamine, N-methyl-	124403	Dimethylamine	1000	1,4	U092	C	1000 (454)
Methanamine, N-methyl-N-nitroso-	62759	N-Nitrosodimethylamine	1*	2,4	P082	A	10 (4.54)
Methane, bromo-	74839	Methyl bromide	1*	2,4	U029	C	1000 (454)
Methane, chloro-	74873	Methyl chloride	1*	2,4	U045	B	100 (45.4)
Methane, chloromethoxy-	107302	Chloromethyl methyl ether	1*	4	U046	A	10 (4.54)
Methane, dibromo-	74953	Methylene bromide	1*	4	U068	C	1000 (454)
Methane, dichloro-	75092	Methylene chloride	1*	2,4	U080	C	1000 (454)
Methane, dichlorodifluoro-	75718	Dichlorodifluoromethane	1*	4	U075	D	5000 (2270)
Methane, iodo-	74884	Methyl iodide	1*	4	U138	B	100 (45.4)
Methane, isocyanato-	624839	Methyl isocyanate	1*	4	P064		##
Methane, oxybis(chloro-	542881	Dichloromethyl ether	1*	4	P016	A	10 (4.54)
Methanesulfenyl chloride, trichloro-	594423	Trichloromethanesulfenyl chloride	1*	4	P118	B	100 (45.4)
Methanesulfonic acid, ethyl ester	62500	Ethyl methanesulfonate	1*	4	U119	X	1 (0.454)
Methane, tetrachloro-	56235	Carbon tetrachloride	5000	1,2,4	U211	A	10 (4.54)
Methane, tetranitro-	509148	Tetranitromethane	1*	4	P112	A	10 (4.54)
Methane, tribromo-	75252	Bromoform	1*	2,4	U225	B	100 (45.4)
Methane, trichloro-	67663	Chloroform	5000	1,2,4	U044	A	10 (4.54)
Methane, trichlorofluoro-	75694	Trichloromonofluoromethane	1*	4	U121	D	5000 (2270)
Methanethiol	74931	Methylmercaptan	100	1,4	U153	B	100 (45.4)
		Thiomethanol					
6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	115297	Endosulfan	1	1,2,4	P050	X	1 (0.454)
1,3,4-Methano-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlor-octahydro-	143500	Kepone	1	1,4	U142	X	1 (0.454)
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76448	Heptachlor	1	1,2,4	P059	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57749	Chlordane Chlordane, alpha & gamma isomers Chlordane, technical	1	1,2,4	U036	X	1 (0.454)
Methanol	67561	Methyl alcohol	1*	4	U154	D	5000 (2270)
Methapyrilene	91805	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	1*	4	U155	D	5000 (2270)
Methomyl	16752775	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester	1*	4	P066	B	100 (45.4)
Methoxychlor	72435	Benzene, 1,1'-(2,2,2-trichloroethylidene) bis[4-methoxy-	1	1,4	U247	X	1 (0.454)
Methyl alcohol	67561	Methanol	1*	4	U154	D	5000 (2270)
Methyl bromide	74839	Methane, bromo-	1*	2,4	U029	C	1000 (454)
1-Methylbutadiene	504609	1,3-Pentadiene	1*	4	U186	B	100 (45.4)
Methyl chloride	74873	Methane, chloro-	1*	2,4	U045	B	100 (45.4)
Methyl chlorocarbonate	79221	Carbonochloridic acid, methyl ester Methyl chloroformate	1*	4	U156	C	1000 (454)
Methyl chloroform	71556	Ethane, 1,1,1-trichloro- 1,1,1-Trichloroethane	1*	2,4	U226	C	1000 (454)
Methyl chloroformate	79221	Carbonochloridic acid, methyl ester Methyl chlorocarbonate	1*	4	U156	C	1000 (454)
3-Methylcholanthrene	56495	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	1*	4	U157	A	10 (4.54)
4,4'-Methylenebis(2-chloroaniline)	101144	Benzenamine, 4,4'-methylenebis(2-chloro-	1*	4	U158	A	10 (4.54)
Methylene bromide	74953	Methane, dibromo-	1*	4	U068	C	1000 (454)
Methylene chloride	75092	Methane, dichloro-	1*	2,4	U080	C	1000 (454)
Methyl ethyl ketone (MEK)	78933	2-Butanone	1*	4	U159	D	5000 (2270)
Methyl ethyl ketone peroxide	1338234	2-Butanone peroxide	1*	4	U160	A	10 (4.54)
Methyl hydrazine	60344	Hydrazine, methyl-	1*	4	P068	A	10 (4.54)
Methyl iodide	74884	Methane, iodo-	1*	4	U138	B	100 (45.4)
Methyl isobutyl ketone	108101	4-Methyl-2-pentanone	1*	4	U161	D	5000 (2270)
Methyl isocyanate	624839	Methane, isocyanato-	1*	4	P064		# #
2-Methyllactonitrile	75865	Acetone cyanohydrin Propanenitrile, 2-hydroxy-2-methyl-	10	1,4	P069	A	10 (4.54)
Methylmercaptan	74931	Methanethiol Thiomethanol	100	1,4	U153	B	100 (45.4)
Methyl methacrylate	80626	2-Propenoic acid, 2-methyl-, methyl ester	5000	1,4	U162	C	1000 (454)
Methyl parathion	298000	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	100	1,4	P071	B	100 (45.4)
4-Methyl-2-pentanone	108101	Methyl isobutyl ketone	1*	4	U161	D	5000 (2270)
Methylthiouracil	56042	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	1*	4	U164	A	10 (4.54)
Mevinphos	7786347		1	1		A	10 (4.54)
Mexacarbate	315184		1000	1		C	1000 (454)
Mitomycin C	50077	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta, 8aalpha, 8balpha)]-	1*	4	U010	A	10 (4.54)
MNNG	70257	Guanidine, N-methyl-N'-nitro-N-nitroso-	1*	4	U163	A	10 (4.54)
Monoethylamine	75047		1000	1		B	100 (45.4)
Monomethylamine	74895		1000	1		B	100 (45.4)
Muscimol	2763964	3(2H)-Isoxazolone, 5-(aminomethyl)- 5-(Aminomethyl)-3-isoxazolol	1*	4	P007	C	1000 (454)
Naled	300765		10	1		A	10 (4.54)
5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830813	Daunomycin	1*	4	U059	A	10 (4.54)
1-Naphthalenamine	134327	alpha-Naphthylamine	1*	4	U167	B	100 (45.4)
2-Naphthalenamine	91598	beta-Naphthylamine	1*	4	U168	A	10 (4.54)
Naphthalenamine, N,N'-bis(2-chloroethyl)-	494031	Chlornaphazine	1*	4	U026	B	100 (45.4)
Naphthalene	91203		5000	1,2,4	U165	B	100 (45.4)
Naphthalene, 2-chloro-	91587	beta-Chloronaphthalene 2-Chloronaphthalene	1*	2,4	U047	D	5000 (2270)
1,4-Naphthalenedione	130154	1,4-Naphthoquinone	1*	4	U166	D	5000 (2270)
2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.	72571	Trypan blue	1*	4	U236	A	10 (4.54)
Naphthenic acid	1338245		100	1		B	100 (45.4)
1,4-Naphthoquinone	130154	1,4-Naphthalenedione	1*	4	U166	D	5000 (2270)
alpha-Naphthylamine	134327	1-Naphthalenamine	1*	4	U167	B	100 (45.4)
beta-Naphthylamine	91598	2-Naphthalenamine	1*	4	U168	A	10 (4.54)
alpha-Naphthylthiourea	86884	Thiourea, 1-naphthalenyl-	1*	4	P072	B	100 (45.4)
Nickel ††	7440020		1*	2		B	100 (45.4)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Nickel ammonium sulfate	15699180		5000	1		B	100 (45.4)
NICKEL AND COMPOUNDS	N.A.		1*	2			**
Nickel carbonyl	13463393	Nickel carbonyl Ni(CO)4, (T-4)-	1*	4	P073	A	10 (4.54)
Nickel carbonyl Ni(CO)4, (T-4)-	13463393	Nickel carbonyl	1*	4	P073	A	10 (4.54)
Nickel chloride	7718549		5000	1		B	100 (45.4)
	37211055						
Nickel cyanide	557197	Nickel cyanide Ni(CN)2	1*	4	P074	A	10 (4.54)
Nickel cyanide Ni(CN)2	557197	Nickel cyanide	1*	4	P074	A	10 (4.54)
Nickel hydroxide	12054487		1000	1		A	10 (4.54)
Nickel nitrate	14216752		5000	1		B	100 (45.4)
Nickel sulfate	7786814		5000	1		B	100 (45.4)
Nicotine, & salts	54115	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	1*	4	P075	B	100 (45.4)
Nitric acid	7697372		1000	1		C	1000 (454)
Nitric acid, thallium (1+) salt	10102451	Thallium (I) nitrate	1*	4	U217	B	100 (45.4)
Nitric oxide	10102439	Nitrogen oxide NO	1*	4	P076	A	10 (4.54)
p-Nitroaniline	100016	Benzenamine, 4-nitro-	1*	4	P077	D	5000 (2270)
Nitrobenzene	98953	Benzene, nitro-	1000	1,2,4	U169	C	1000 (454)
Nitrogen dioxide	10102440	Nitrogen oxide NO2	1000	1,4	P078	A	10 (4.54)
	10544726						
Nitrogen oxide NO	10102439	Nitric oxide	1*	4	P076	A	10 (4.54)
Nitrogen oxide NO2	10102440	Nitrogen dioxide	1000	1,4	P078	A	10 (4.54)
	10544726						
Nitroglycerine	55630	1,2,3-Propanetriol, trinitrate-	1*	4	P081	A	10 (4.54)
Nitrophenol (mixed)	25154556		1000	1		B	100 (45.4)
m-Nitrophenol	554847					B	100 (45.4)
o-Nitrophenol	88755	2-Nitrophenol					
p-Nitrophenol	100027	Phenol, 4-nitro- 4-Nitrophenol					
o-Nitrophenol	88755	2-Nitrophenol	1000	1,2		B	100 (45.4)
p-Nitrophenol	100027	Phenol, 4-nitro- 4-Nitrophenol	1000	1,2,4	U170	B	100 (45.4)
2-Nitrophenol	88755	o-Nitrophenol	1000	1,2		B	100 (45.4)
4-Nitrophenol	100027	p-Nitrophenol Phenol, 4-nitro-	1000	1,2,4	U170	B	100 (45.4)
NITROPHENOLS	N.A.		1*	2			**
2-Nitropropane	79469	Propane, 2-nitro-	1*	4	U171	A	10 (4.54)
NITROSAMINES	N.A.		1*	2			**
N-Nitrosodi-n-butylamine	924163	1-Butanamine, N-butyl-N-nitroso-	1*	4	U172	A	10 (4.54)
N-Nitrosodiethanolamine	1116547	Ethanol, 2,2'-(nitrosoimino)bis-	1*	4	U173	X	1 (0.454)
N-Nitrosodiethylamine	55185	Ethanamine, N-ethyl-N-nitroso-	1*	4	U174	X	1 (0.454)
N-Nitrosodimethylamine	62759	Methanamine, N-methyl-N-nitroso-	1*	2,4	P082	A	10 (4.54)
N-Nitrosodiphenylamine	86306		1*	2		B	100 (45.4)
N-Nitroso-N-ethylurea	759739	Urea, N-ethyl-N-nitroso-	1*	4	U176	X	1 (0.454)
N-Nitroso-N-methylurea	684935	Urea, N-methyl-N-nitroso	1*	4	U177	X	1 (0.454)
N-Nitroso-N-methylurethane	615532	Carbamic acid, methylnitroso-, ethyl ester	1*	4	U178	X	1 (0.454)
N-Nitrosomethylvinylamine	4549400	Vinylamine, N-methyl-N-nitroso-	1*	4	P084	A	10 (4.54)
N-Nitrosopiperidine	100754	Piperidine, 1-nitroso-	1*	4	U179	A	10 (4.54)
N-Nitrosopyrrolidine	930552	Pyrrolidine, 1-nitroso-	1*	4	U180	X	1 (0.454)
Nitrotoluene	1321126		1000	1		C	1000 (454)
m-Nitrotoluene	99081						
o-Nitrotoluene	88722						
p-Nitrotoluene	99990						
5-Nitro-o-toluidine	99558	Benzenamine, 2-methyl-5-nitro-	1*	4	U181	B	100 (45.4)
Octamethylpyrophosphoramide	152169	Diphosphoramide, octamethyl-	1*	4	P085	B	100 (45.4)
Osmium oxide OsO4 (T-4)-	20816120	Osmium tetroxide	1*	4	P087	C	1000 (454)
Osmium tetroxide	20816120	Osmium oxide OsO4 (T-4)-	1*	4	P087	C	1000 (454)
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145733	Endothall	1*	4	P088	C	1000 (454)
1,2-Oxathiolane, 2,2-dioxide	1120714	1,3-Propane sultone	1*	4	U193	A	10 (4.54)
2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	50180	Cyclophosphamide	1*	4	U058	A	10 (4.54)
Oxirane	75218	Ethylene oxide	1*	4	U115	A	10 (4.54)
Oxiranecarboxyaldehyde	765344	Glycidylaldehyde	1*	4	U126	A	10 (4.54)
Oxirane, (chloromethyl)-	106898	Epichlorohydrin	1000	1,4	U041	B	100 (45.4)
Paraformaldehyde	30525894		1000	1		C	1000 (454)
Paraldehyde	123637	1,3,5-Trioxane, 2,4,6-trimethyl-	1*	4	U182	C	1000 (454)
Parathion	56382	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	1	1,4	P089	A	10 (4.54)
Pentachlorobenzene	608935	Benzene, pentachloro-	1*	4	U183	A	10 (4.54)
Pentachloroethane	76017	Ethane, pentachloro-	1*	4	U184	A	10 (4.54)
Pentachloronitrobenzene (PCNB)	82688	Benzene, pentachloronitro-	1*	4	U185	B	100 (45.4)
Pentachlorophenol	87865	Phenol, pentachloro-	10	1,2,4	U242	A	10 (4.54)
1,3-Pentadiene	504609	1-Methylbutadiene	1*	4	U186	B	100 (45.4)
Perchloroethylene	127184	Ethene, tetrachloro- Tetrachloro- ethene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
Phenacetin	62442	Acetamide, N-(4-ethoxyphenyl)-	1*	4	U187	B	100 (45.4)
Phenanthrene	85018		1*	2		D	5000 (2270)
Phenol	108952	Benzene, hydroxy-	1000	1,2,4	U188	C	1000(454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Phenol, 2-chloro-	95578	o-Chlorophenol 2-Chlorophenol	1*	2,4	U048	B	100 (45.4)
Phenol, 4-chloro-3-methyl-	59507	p-Chloro-m-cresol 4-Chloro-m-cresol	1*	2,4	U039	D	5000 (2270)
Phenol, 2-cyclohexyl-4,6-dinitro-	131895	2-Cyclohexyl-4,6-dinitrophenol	1*	4	P034	B	100 (45.4)
Phenol, 2,4-dichloro-	120832	2,4-Dichlorophenol	1*	2,4	U081	B	100 (45.4)
Phenol, 2,6-dichloro-	87650	2,6-Dichlorophenol	1*	4	U082	B	100 (45.4)
Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)	56531	Diethylstilbestrol	1*	4	U089	X	1 (0.454)
Phenol, 2,4-dimethyl-	105679	2,4-Dimethylphenol	1*	2,4	U101	B	100(45.4)
Phenol, 2,4-dinitro-	51285	2,4-Dinitrophenol	1000	1,2,4	P048	A	10 (4.54)
Phenol, methyl-	1319773	Cresol(s) Cresylic acid	1000	1,4	U052	C	1000 (454)
m-Cresol	108394	m-Cresylic acid					
o-Cresol	95487	o-Cresylic acid					
p-Cresol	106445	p-Cresylic acid					
Phenol, 2-methyl-4,6-dinitro-	534521	4,6-Dinitro-o-cresol and salts	1*	2,4	P047	A	10 (4.54)
Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70304	Hexachlorophene	1*	4	U132	B	100 (45.4)
Phenol, 2-(1-methylpropyl)-4,6-dinitro	88857	Dinoseb	1*	4	P020	C	1000 (454)
Phenol, 4-nitro-	100027	p-Nitrophenol 4-Nitrophenol	1000	1,2,4	U170	B	100 (45.4)
Phenol, pentachloro-	87865	Pentachlorophenol	10	1,2,4	U242	A	10 (4.54)
Phenol, 2,3,4,6-tetrachloro-	58902	2,3,4,6-Tetrachlorophenol	1*	4	U212	A	10 (4.54)
Phenol, 2,4,5-trichloro-	95954	2,4,5-Trichlorophenol	10	1,4	U230	A	10 (4.54)
Phenol, 2,4,6-trichloro-	88062	2,4,6-Trichlorophenol	10	1,2,4	U231	A	10 (4.54)
Phenol, 2,4,6-trinitro-, ammonium salt	131748	Ammonium picrate	1*	4	P009	A	10 (4.54)
L-Phenylalanine, 4-[bis(2-chloroethyl) aminol]	148823	Melphalan	1*	4	U150	X	1 (0.454)
1,10-(1,2-Phenylene)pyrene	193395	Indeno(1,2,3-cd)pyrene	1*	2,4	U137	B	100 (45.4)
Phenylmercury acetate	62384	Mercury, (acetato-O)phenyl-	1*	4	P092	B	100 (45.4)
Phenylthiourea	103855	Thiourea, phenyl-	1*	4	P093	B	100 (45.4)
Phorate	298022	Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester	1*	4	P094	A	10 (4.54)
Phosgene	75445	Carbonic dichloride	5000	1,4	P095	A	10 (4.54)
Phosphine	7803512		1*	4	P096	B	100 (45.4)
Phosphoric acid	7664382		5000	1		D	5000 (2270)
Phosphoric acid, diethyl 4-nitrophenyl ester	311455	Diethyl-p-nitrophenyl phosphate	1*	4	P041	B	100 (45.4)
Phosphoric acid, lead(2+) salt (2:3)	7446277	Lead phosphate	1*	4	U145		#
Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester	298044	Disulfoton	1	1,4	P039	X	1 (0.454)
Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester	298022	Phorate	1*	4	P094	A	10 (4.54)
Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288582	O,O-Diethyl S-methyl dithiophosphate	1*	4	U087	D	5000 (2270)
Phosphorodithioic acid, O,O-dimethyl S-[2(methylamino)-2-oxoethyl] ester	60515	Dimethoate	1*	4	P044	A	10 (4.54)
Phosphorofluoridic acid, bis(1-methylethyl) ester	55914	Diisopropylfluorophosphate	1*	4	P043	B	100 (45.4)
Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56382	Parathion	1	1,4	P089	A	10 (4.54)
Phosphorothioic acid, O,[4-[(dimethylamino) sulfonyl]phenyl]O,O-dimethyl ester	52857	Famphur	1*	4	P097	C	1000 (454)
Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298000	Methyl parathion	100	1,4	P071	B	100 (45.4)
Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.	297972	O,O-Diethyl O-pyrazinyl phosphorothioate	1*	4	P040	B	100 (45.4)
Phosphorus	7723140		1	1		X	1 (0.454)
Phosphrous oxycloride	10025873		5000	1		C	1000 (454)
Phosphorus pentasulfide	1314803	Phosphorus sulfide Sulfur phosphide	100	1,4	U189	B	100 (45.4)
Phosphorus sulfide	1314803	Phosphorus pentasulfide Sulfur phosphide	100	1,4	U189	B	100 (45.4)
Phosphorus trichloride	7719122		5000	1		C	1000 (454)
PHTHALATE ESTERS	N.A.		1*	2			**
Phthalic anhydride	85449	1,3-Isobenzofurandione	1*	4	U190	D	5000 (2270)
2-Picoline	109068	Pyridine, 2-methyl-	1*	4	U191	D	5000 (2270)
Piperidine, 1-nitroso-	100754	N-Nitrosopiperidine	1*	4	U179	A	10 (4.54)
Plumbane, tetraethyl-	78002	Tetraethyl lead	100	1,4	P110	A	10 (4.54)
POLYCHLORINATED BIPHENYLS (PCBs)	1336363		10	1,2		X	1 (0.454)
Aroclor 1016	12674112	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1221	11104282	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1232	11141165	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1242	53469219	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1248	12672296	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1254	11097691	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1260	11096825	POLYCHLORINATED BIPHENYLS (PCBs)					
POLYNUCLEAR AROMATIC HYDROCARBONS.	N.A.		1*	2			**
Potassium arsenate	7784410		1000	1		X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Potassium arsenite	10124502		1000	1		X	1 (0.454)
Potassium bichromate	7778509		1000	1		A	10 (4.54)
Potassium chromate	7789006		1000	1		A	10 (4.54)
Potassium cyanide	151508	Potassium cyanide K (CN)	10	1,4	P098	A	10 (4.54)
Potassium cyanide K(CN)	151508	Potassium cyanide	10	1,4	P098	A	10 (4.54)
Potassium hydroxide	1310583		1000	1		C	1000 (454)
Potassium permanganate	7722647		100	1		B	100 (45.4)
Potassium silver cyanide	506616	Argentate (1-), bis(cyano-C)-, potassium	1*	4	P099	X	1 (0.454)
Pronamide	23950585	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	1*	4	U192	D	5000 (2270)
Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116063	Aldicarb	1*	4	P070	X	1 (0.454)
1-Propanamine	107108	n-Propylamine	1*	4	U194	D	5000 (2270)
1-Propanamine, N-propyl-	142847	Dipropylamine	1*	4	U110	D	5000 (2270)
1-Propanamine, N-nitroso-N-propyl-	621647	Di-n-propylnitrosamine	1*	2,4	U111	A	10 (4.54)
Propane, 1,2-dibromo-3-chloro-	96128	1,2-Dibromo-3-chloropropane	1*	4	U066	X	1 (0.454)
Propane, 2-nitro-	79469	2-Nitropropane	1*	4	U171	A	10 (4.54)
1,3-Propane sultone	1120714	1,2-Oxathiolane, 2,2-dioxide	1*	4	U193	A	10 (4.54)
Propane, 1,2-dichloro-	78875	Propylene dichloride 1,2-Dichloropropane	5000	1,2,4	U083	C	1000 (454)
Propanedinitrile	109773	Malononitrile	1*	4	U149	C	1000 (454)
Propanenitrile	107120	Ethyl cyanide	1*	4	P101	A	10 (4.54)
Propanenitrile, 3-chloro-	542767	3-Chloropropionitrile	1*	4	P027	C	1000 (454)
Propanenitrile, 2-hydroxy-2-methyl-	75865	Acetone cyanohydrin 2-Methyllactonitrile	10	1,4	P069	A	10 (4.54)
Propane, 2,2'-oxybis[2-chloro-	108601	Dichloroisopropyl ether	1*	2,4	U027	C	1000 (454)
1,2,3-Propanetriol, trinitrate-	55630	Nitroglycerine	1*	4	P081	A	10 (4.54)
1-Propanol, 2,3-dibromo-, phosphate (3:1)	126727	Tris(2,3-dibromopropyl) phosphate	1*	4	U235	A	10 (4.54)
1-Propanol, 2-methyl-	78831	Isobutyl alcohol	1*	4	U140	D	5000 (2270)
2-Propanone	67641	Acetone	1*	4	U002	D	5000 (2270)
2-Propanone, 1-bromo-	598312	Bromoacetone	1*	4	P017	C	1000 (454)
Propargite	2312358		10	1		A	10 (4.54)
Propargyl alcohol	107197	2-Propyn-1-ol	1*	4	P102	C	1000 (454)
2-Propenal	107028	Acrolein	1	1,2,4	P003	X	1 (0.454)
2-Propenamide	79061	Acrylamide	1*	4	U007	D	5000 (2270)
1-Propene, 1,1,2,3,3,3-hexachloro-	1888717	Hexachloropropene	1*	4	U243	C	1000 (454)
1-Propene, 1,3-dichloro-	542756	1,3-Dichloropropene	5000	1,2,4	U084	B	100 (45.4)
2-Propenenitrile	107131	Acrylonitrile	100	1,2,4	U009	B	100 (45.4)
2-Propenenitrile, 2-methyl-	126987	Methacrylonitrile	1*	4	U152	C	1000 (454)
2-Propenoic acid	79107	Acrylic acid	1*	4	U008	D	5000 (2270)
2-Propenoic acid, ethyl ester	140885	Ethyl acrylate	1*	4	U113	C	1000 (454)
2-Propenoic acid, 2-methyl-, ethyl ester	97632	Ethyl methacrylate	1*	4	U118	C	1000 (454)
2-Propenoic acid, 2-methyl-, methyl ester	80626	Methyl methacrylate	5000	1,4	U162	C	1000 (454)
2-Propen-1-ol	107186	Allyl alcohol	100	1,4	P005	B	100 (45.4)
Propionic acid	79094		5000	1		D	5000 (2270)
Propionic acid, 2-(2,4,5-trichlorophenoxy)-	93721	Silvex (2,4,5-TP) 2,4,5-TP acid	100	1,4	U233	B	100 (45.4)
Propionic anhydride	123626		5000	1		D	5000 (2270)
n-Propylamine	107108	1-Propanamine	1*	4	U194	D	5000 (2270)
Propylene dichloride	78875	Propane, 1,2-dichloro- 1,2-Dichloropropane	5000	1,2,4	U083	C	1000 (454)
Propylene oxide	75569		5000	1		B	100 (45.4)
1,2-Propylenimine	75558	Aziridine, 2-methyl-	1*	4	P067	X	1 (0.454)
2-Propyn-1-ol	107197	Propargyl alcohol	1*	4	P102	C	1000 (454)
Pyrene	129000		1*	2		D	5000 (2270)
Pyrethrins	121299 121211 8003347		1000	1		X	1 (0.545)
3,6-Pyridazinedione, 1,2-dihydro-	123331	Maleic hydrazide	1*	4	U148	D	5000 (2270)
4-Pyridinamine	504245	4-Aminopyridine	1*	4	P008	C	1000 (454)
Pyridine	110861		1*	4	U196	C	1000 (454)
Pyridine, 2-methyl-	109068	2-Picoline	1*	4	U191	D	5000 (2270)
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54115	Nicotine, & salts	1*	4	P075	B	100 (45.4)
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66751	Uracil mustard	1*	4	U237	A	10 (4.54)
4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56042	Methylthiouracil	1*	4	U164	A	10 (4.54)
Pyrrolidine, 1-nitroso-	930552	N-Nitrosopyrrolidine	1*	4	U180	X	1 (0.454)
Quinoline	91225		1000	1		D	5000 (2270)
RADIONUCLIDES	N.A.		1*	3			§
Reserpine	50555	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy-, methyl ester (3beta, 16beta,17alpha,18beta,20alpha)-	1*	4	U200	D	5000 (2270)
Resorcinol	108463	1,3-Benzenediol	1000	1,4	U201	D	5000 (2270)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Saccharin and salts	81072	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	1*	4	U202	B	100 (45.4)
Safrole	94597	1,3-Benzodioxole, 5-(2-propenyl)-	1*	4	U203	B	100 (45.4)
Selenious acid	7783008		1*	4	U204	A	10 (4.54)
Selenious acid, dithallium (1+) salt	12039520	Thallium selenite	1*	4	P114	C	1000 (454)
Selenium ††	7782492		1*	2		B	100 (45.4)
SELENIUM AND COMPOUNDS	N.A.		1*	2			**
Selenium dioxide	7446084	Selenium oxide	1000	1,4	U204	A	10 (4.54)
Selenium oxide	7446084	Selenium dioxide	1000	1,4	U204	A	10 (4.54)
Selenium sulfide	7488564	Selenium sulfide SeS2	1*	4	U205	A	10 (4.54)
Selenium sulfide SeS2	7488564	Selenium sulfide	1*	4	U205	A	10 (4.54)
Selenourea	630104		1*	4	P103	C	1000 (454)
L-Serine, diazoacetate (ester)	115026	Azaserine	1*	4	U015	X	1 (0.454)
Silver ††	7440224		1*	2		C	1000 (454)
SILVER AND COMPOUNDS	N.A.		1*	2			**
Silver cyanide	506649	Silver cyanide Ag (CN)	1*	4	P104	X	1 (0.454)
Silver cyanide Ag (CN)	506649	Silver cyanide	1*	4	P104	X	1 (0.454)
Silver nitrate	7761888		1	1		X	1 (0.454)
Silvex (2,4,5-TP)	93721	Propionic acid, 2-(2,4,5-trichlorophenoxy)-2,4,5-TP acid	100	1,4	U233	B	100 (45.4)
Sodium	7440235		1000	1		A	10 (4.54)
Sodium arsenate	7631892		1000	1		X	1 (0.454)
Sodium arsenite	7784465		1000	1		X	1 (0.454)
Sodium azide	26628228		1*	4	P105	C	1000 (454)
Sodium bichromate	10588019		1000	1		A	10 (4.54)
Sodium bifluoride	1333831		5000	1		B	100 (45.4)
Sodium bisulfite	7631905		5000	1		D	5000 (2270)
Sodium chromate	7775113		1000	1		A	10 (4.54)
Sodium cyanide	143339	Sodium cyanide Na (CN)	10	1,4	P106	A	10 (4.54)
Sodium cyanide Na (CN)	143339	Sodium cyanide	10	1,4	P106	A	10 (4.54)
Sodium dodecylbenzenesulfonate	25155300		1000	1		C	1000 (454)
Sodium fluoride	7681494		5000	1		C	1000 (454)
Sodium hydrosulfide	16721805		5000	1		D	5000 (2270)
Sodium hydroxide	1310732		1000	1		C	1000 (454)
Sodium hypochlorite	7681529		100	1		B	100 (45.4)
	10022705						
Sodium methylate	124414		1000	1		C	1000 (454)
Sodium nitrite	7632000		100	1		B	100 (45.4)
Sodium phosphate, dibasic	7558794		5000	1		D	5000 (2270)
	10039324						
	10140655						
Sodium phosphate, tribasic	7601549		5000	1		D	5000 (2270)
	7758294						
	7785844						
	10101890						
	10124568						
	10361894						
Sodium selenite	10102188		1000	1		B	100 (45–4)
	7782823						
Streptozotocin	18883664	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-	1*	4	U206	X	1 (0.454)
Strontium chromate	7789062		1000	1		A	10 (4.54)
Strychnidin-10-one	57249	Strychnine, & salts	10	1,4	P108	A	10 (4.54)
Strychnidin-10-one, 2,3-dimethoxy-	357573	Brucine	1*	4	P018	B	100 (45.4)
Strychnine, & salts	57249	Strychnidin-10-one	10	1,4	P108	A	10 (4.54)
Styrene	100425		1000	1		C	1000 (454)
Sulfur monochloride	12771083		1000	1		C	1000 (454)
Sulfur phosphide	1314803	Phosphorus pentasulfide Phosphorus sulfide	100	1,4	U189	B	100 (45.4)
Sulfuric acid	7664939		1000	1		C	1000 (454)
	8014957						
Sulfuric acid, dithallium (1+) salt	7446186	Thallium (I) sulfate	1000	1,4	P115	B	100 (45.4)
	10031591						
Sulfuric acid, dimethyl ester	77781	Dimethyl sulfate	1*	4	U103	B	100 (45.4)
2,4,5-T acid	93765	Acetic acid, (2,4,5-trichlorophenoxy)	100	1,4	U232	C	1000 (454)
2,4,5-T amines	2008460	2,4,5-T	100	1		D	5000 (2270)
	1319728						
	3813147						
	6369966						
	6369977						

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
2,4,5-T esters	93798 1928478 2545597 25168154 61792072		100	1		C	1000 (454)
2,4,5-T salts	13560991		100	1		C	1000 (454)
2,4,5-T	93765	Acetic acid, (2,4,5-trichlorophenoxy) 2,4,5-T acid	100	1,4	U232	C	1000 (454)
TDE	72548	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- DDD 4,4' DDD	1	1,2,4	U060	X	1 (0.454)
1,2,4,5-Tetrachlorobenzene	95943	Benzene, 1,2,4,5-tetrachloro-	1*	4	U207	D	5000 (2270)
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746016		1*	2		X	1 (0.454)
1,1,1,2-Tetrachloroethane	630206	Ethane, 1,1,1,2-tetrachloro-	1*	4	U208	B	100 (45.4)
1,1,2,2-Tetrachloroethane	79345	Ethane, 1,1,2,2-tetrachloro-	1*	2,4	U209	B	100 (45.4)
Tetrachloroethene	127184	Ethene, tetrachloro- Perchloroethylene Tetrachloroethylene	1*	2,4	U210	B	100 (45.4)
Tetrachloroethylene	127184	Ethene, tetrachloro- Perchloroethylene Tetrachloroethene	1*	2,4	U210	B	100 (45.4)
2,3,4,6-Tetrachlorophenol	58902	Phenol, 2,3,4,6-tetrachloro-	1*	4	U212	A	10 (4.54)
Tetraethyl lead	78002	Plumbane, tetraethyl-	100	1,4	P110	A	10 (4.54)
Tetraethyl pyrophosphate	107493	Diphosphoric acid, tetraethyl ester	100	1,4	P111	A	10 (4.54)
Tetraethyldithiopyrophosphate	3689245	Thiodiphosphoric acid, tetraethyl ester	1*	4	P109	B	100 (45.4)
Tetrahydrofuran	109999	Furan, tetrahydro-	1*	4	U213	C	1000 (454)
Tetranitromethane	509148	Methane, tetranitro-	1*	4	P112	A	10 (4.54)
Tetraphosphoric acid, hexaethyl ester	757584	Hexaethyl tetraphosphoate	1*	4	P062	B	100 (45.4)
Thallic oxide	1314325	Thallium oxide Tl203	1*	4	P113	B	100 (45.4)
Thallium ‡	7440280		1*	2		C	1000 (454)
Thallium and compounds	N.A.		1*	2			**
Thallium (I) acetate	563688	Acetic acid, thallium(1+) salt	1*	4	U214	B	100 (45.4)
Thallium (I) carbonate	6533739	Carbonic acid, dithallium(1+) salt	1*	4	U215	B	100 (45.4)
Thallium (I) chloride	7791120	Thallium chloride TlCl	1*	4	U216	B	100 (45.4)
Thallium chloride TlCl	7791120	Thallium(I) chloride	1*	4	U216	B	100 (45.4)
Thallium (I) nitrate	10102451	Nitric acid, thallium (1+) salt	1*	4	U217	B	100 (45.4)
Thallium oxide Tl203	1314325	Thallic oxide	1*	4	P113	B	100 (45.4)
Thallium selenite	12039520	Selenious acid, dithallium(1+) salt	1*	4	P114	C	1000 (454)
Thallium (I) sulfate	7446186 10031591	Sulfuric acid, dithallium(1+) salt	1000	1,4	P115	B	100 (45.4)
Thioacetamide	62555	Ethanethioamide	1*	4	U218	A	10 (4.54)
Thiodiphosphoric acid, tetraethyl ester	3689245	Tetraethyldithiopyrophosphate	1*	4	P109	B	100 (45.4)
Thiofanox	39196184	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O[(methylamino)carbonyl) oxime	1*	4	P045	B	100 (45.4)
Thioimidodicarbonic diamide [(H2N)C(S)] 2NH.	541537	Dithiobiuret	1*	4	P049	B	100 (45.4)
Thiomethanol	74931	Methanethiol Methylmercaptan	100	1,4	U153	B	100 (45.4)
Thioperoxydicarbonic diamide [(H2N)C(S)] 2S2, tetramethyl-	137268	Thiram	1*	4	U244	A	10 (4.54)
Thiophenol	108985	Benzenethiol	1*	4	P014	B	100 (45.4)
Thiosemicarbazide	79196	Hydrazinecarbothioamide	1*	4	P116	B	100 (45.4)
Thiourea	62566		1*	4	U219	A	10 (4.54)
Thiourea, (2-chlorophenyl)-	5344821	1-(o-Chlorophenyl)thiourea	1*	4	P026	B	100 (45.4)
Thiourea, 1-naphthalenyl-	86884	alpha-Naphthylthiourea	1*	4	P072	B	100 (45.4)
Thiourea, phenyl-	103855	Phenylthiourea	1*	4	P093	B	100 (45.4)
Thiram	137268	Thioperoxydicarbonic diamide [(H2N)C(S)] 2S2, tetramethyl-	1*	4	U244	A	10 (4.54)
Toluene	108883	Benzene, methyl-	1000	1,2,4	U220	C	1000 (454)
Toluenediamine	95807 496720 823405 25376458	Benzenediamine, ar-methyl-	1*	4	U221	A	10 (4.54)
Toluene diisocyanate	584849 91087 26471625	Benzene, 1,3-diisocyanatomethyl-	1*	4	U223	B	100 (45.4)
o-Toluidine	95534	Benzenamine, 2-methyl-	1*	4	U328	B	100 (45.4)
p-Toluidine	106490	Benzenamine, 4-methyl-	1*	4	U353	B	100 (45.4)
o-Toluidine hydrochloride	636215	Benzenamine, 2-methyl-, hydrochloride	1*	4	U222	B	100 (45.4)
Toxaphene	8001352	Camphene, octachloro-	1*	1,2,4,	P123	X	1 (0.454)
2,4,5-TP acid	93721	Propionic acid, 2-(2,4,5-trichlorophenoxy)- Silvex (2,4,5-TP)	100	1,4	U233	B	100 (45.4)
2,4,5-TP esters	32534955		100	1		B	100 (45.4)
1H-1,2,4-Triazol-3-amine	61825	Amitrole	1*	4	U011	A	10 (4.54)
Trichlorfon	52686		1000	1		B	100 (45.4)
1,2,4-Trichlorobenzene	120821		1*	2		B	100 (45.4)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
1,1,1-Trichloroethane	71556	Ethane, 1,1,1-trichloro-	1*	2,4	U226	C	1000 (454)
		Methyl chloroform					
1,1,2-Trichloroethane	79005	Ethane, 1,1,2-trichloro-	1*	2,4	U227	B	100 (45.4)
Trichloroethene	79016	Ethene, trichloro-	1000	1,2,4	U228	B	100 (45.4)
		Trichloroethylene					
Trichloroethylene	79016	Ethene, trichloro-	1000	1,2,4	U228	B	100 (45.4)
		Trichloroethene					
Trichloromethanesulfenyl chloride	594423	Methanesulfenyl chloride, trichloro-	1*	4	P118	B	100 (45.4)
Trichloromonofluoromethane	75694	Methane, trichlorofluoro-	1*	4	U121	D	5000 (2270)
Trichlorophenol	25167822		10	1		A	10 (4.54)
2,3,4-Trichlorophenol	15950660		.....				
2,3,5-Trichlorophenol	933788		.....				
2,3,6-Trichlorophenol	933755		.....				
2,4,5-Trichlorophenol	95954	Phenol, 2,4,5-trichloro-	10*	1,4	U230	A	10 (4.54)
2,4,6-Trichlorophenol	88062	Phenol, 2,4,6-trichloro-	10*	1,2,4	U231	A	10 (4.54)
3,4,5-Trichlorophenol	609198		.....				
2,4,5-Trichlorophenol	95954	Phenol, 2,4,5-trichloro-	10*	1,4	U230	A	10 (4.54)
2,4,6-Trichlorophenol	88062	Phenol, 2,4,6-trichloro-	10	1,2,4	U231	A	10 (4.54)
Triethanolamine dodecylbenzenesulfonate	27323417		1000	1		C	1000 (454)
Triethylamine	121448		5000	1		D	5000 (2270)
Trimethylamine	75503		1000	1		B	100 (45.4)
1,3,5-Trinitrobenzene	99354	Benzene, 1,3,5-trinitro-	1*	4	U234	A	10 (4.54)
1,3,5-Trioxane, 2,4,6-trimethyl-	123637	Paraldehyde	1*	4	U182	C	1000 (454)
Tris(2,3-dibromopropyl) phosphate	126727	1-Propanol, 2,3-dibromo-, phosphate [(3:1)	1*	4	U235	A	10 (4.54)
Trypan blue	72571	2,7-Naphthalenedisulfonic acid, 3,3'-3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt	1*	4	U236	A	10 (4.54)
Unlisted Hazardous Wastes Characteristic of Corrosivity.	N.A.		1*	4	D002	B	100 (45.4)
Unlisted Hazardous Wastes Characteristic of EP Toxicity.	N.A.		1*	4			
Arsenic D004	N.A.		1*	4	D004	X	1 (0.454)
Barium D005	N.A.		1*	4	D005	C	1000 (454)
Cadmium D006	N.A.		1*	4	D006	A	10 (4.54)
Chromium D007	N.A.		1*	4	D007	A	10 (4.54)
Lead D008	N.A.		1*	4	D008		#
Mercury D009	N.A.		1*	4	D009	X	1 (0.454)
Selenium D010	N.A.		1*	4	D010	A	10 (4.54)
Silver D011	N.A.		1*	4	D011	X	1 (0.454)
Endrin D012	N.A.		1	1,4	D012	X	1 (0.454)
Lindane D013	N.A.		1	1,4	D013	X	1 (0.454)
Methoxychlor D014	N.A.		1	1,4	D014	X	1 (0.454)
Toxaphene D015	N.A.		1	1,4	D015	X	1 (0.454)
2,4-D D016	N.A.		100	1,4	D016	B	100 (45.4)
2,4,5-TP D017	N.A.		100	1,4	D017	B	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Ignitability.	N.A.		1*	4	D001	B	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Reactivity.	N.A.		1*	4	D003	B	100 (45.4)
Uracil mustard	66751	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	1*	4	U237	A	10 (4.54)
Uranyl acetate	541093		5000	1		B	100 (45.4)
Uranyl nitrate	10102064		5000	1		B	100 (45.4)
	36478769						
Urea, N-ethyl-N-nitroso-	759739	N-Nitroso-N-ethylurea	1*	4	U176	X	1 (0.454)
Urea, N-methyl-N-nitroso	684935	N-Nitroso-N-methylurea	1*	4	U177	X	1 (0.454)
Vanadic acid, ammonium salt	7803556	Ammonium vanadate	1*	4	P119	C	1000 (454)
Vanadium oxide V205	1314621	Vanadium pentoxide	1000	1,4	P120	C	1000 (454)
Vanadium pentoxide	1314621	Vanadium oxide V205	1000	1,4	P120	C	1000 (454)
Vanadyl sulfate	27774136		1000	1		C	1000 (454)
Vinyl chloride	75014	Ethene, chloro-	1*	2,3,4	U043	X	1 (0.454)
Vinyl acetate	108054	Vinyl acetate monomer	1000	1		D	5000 (2270)
Vinyl acetate monomer	108054	Vinyl acetate	1000	1		D	5000 (2270)
Vinylamine, N-methyl-N-nitroso-	4549400	N-Nitrosomethylvinylamine	1*	4	P084	A	10 (4.54)
Vinylidene chloride	75354	Ethene, 1,1-dichloro-	5000	1,2,4	U078	B	100 (45.4)
		1,1-Dichloroethylene					
Warfarin, & salts, when present at concentrations greater than 0.3%.	81812	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations greater than 0.3%	1*	4	P001	B	100 (45.4)
Xylene (mixed)	1330207	Benzene, dimethyl	1000	1,4	U239	C	1000 (454)
m-Benzene, dimethyl	108383	m-Xylene					
o-Benzene, dimethyl	95476	o-Xylene					
p-Benzene, dimethyl	106423	p-Xylene					

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Xylenol	1300716		1000	1		C	1000 (454)
Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester (3beta,16beta,17alpha, 18beta, 20alpha)-	50555	Reserpine	1*	4	U200	D	5000 (2270)
Zinc ‖	7440666		1*	2		C	1000 (454)
ZINC AND COMPOUNDS	N.A.		1*	2			**
Zinc acetate	557346		1000	1		C	1000 (454)
Zinc ammonium chloride	52628258		5000	1		C	1000 (454)
	14639975						
	14639986						
Zinc borate	1332076		1000	1		C	1000 (454)
Zinc bromide	7699458		5000	1		C	1000 (454)
Zinc carbonate	3486359		1000	1		C	1000 (454)
Zinc chloride	7646857		5000	1		C	1000 (454)
Zinc cyanide	557211	Zinc cyanide Zn(CN)2	10	1,4	P121	A	10 (4.54)
Zinc cyanide Zn(CN)2	557211	Zinc cyanide	10	1,4	P121	A	10 (4.54)
Zinc flouride	7783495		1000	1		C	1000 (454)
Zinc formate	557415		1000	1		C	1000 (454)
Zinc hydrosulfite	7779864		1000	1		C	1000 (454)
Zinc nitrate	7779886		5000	1		C	1000 (454)
Zinc phenosulfonate	127822		5000	1		D	5000 (2270)
Zinc phosphide	1314847	Zinc phosphide Zn3P2, when present at concentrations greater than 10%	1000	1,4	P122	B	100 (45.4)
Zinc phosphide Zn3P2, when present at concentrations greater than 10%.	1314847	Zinc phosphide	1000	1,4	P122	B	100 (45.4)
Zinc silicofluoride	16871719		5000	1		D	5000 (2270)
Zinc sulfate	7733020		1000	1		C	1000 (454)
Zirconium nitrate	13746899		5000	1		D	5000 (2270)
Zirconium potassium fluoride	16923958		5000	1		C	1000 (454)
Zirconium sulfate	14644612		5000	1		D	5000 (2270)
Zirconium tetrachloride	10026116		5000	1		D	5000 (2270)
F001			1*	4	F001	A	10 (4.54)
The following spent halogenated solvents used in degreasing; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.							
(a) Tetrachloroethylene	127184		1*	2,4	U210	B	100 (45.4)
(b) Trichloroethylene	79016		1000	1,2,4	U228	B	100 (45.4)
(c) Methylene chloride	75092		1*	2,4	U080	C	1000 (454)
(d) 1,1,1-Trichloroethane	71556		1*	2,4	U226	C	1000 (454)
(e) Carbon tetrachloride	56235		5000	1,2,4	U211	A	10 (4.54)
(f) Chlorinated fluorocarbons	N.A.					D	5000 (2270)
F002			1*	4	F002	A	10 (4.54)
The following spent halogenated solvents; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.							
(a) Tetrachloroethylene	127184		1*	2,4	U210	B	100 (45.4)
(b) Methylene chloride	75092		1*	2,4	U080	C	1000 (454)
(c) Trichloroethylene	79016		1000	1,2,4	U228	B	100 (45.4)
(d) 1,1,1-Trichloroethane	71556		1*	2,4	U226	C	1000 (454)
(e) Chlorobenzene	108907		100	1,2,4	U037	B	100 (45.4)
(f) 1,1,2-Trichloro-1,2,2-trifluoroethane	76131					D	5000 (2270)
(g) o-Dischlorobenzene	95501		100	1,2,4	U070	B	100 (45.4)
(h) Trichlorofluoromethane	75694		1*	4	U121	D	5000 (2270)
(i) 1,1,2-Thrichloroethane	79005		1*	2,4	U227	B	100 (45.4)
F003			1*	4	F003	B	100 (45.4)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or:							
(a) Xylene (mixed)	1330207		1000	1,4	U239	C	1000 (454)
(b) Acetone	67641		1*	4	U002	D	5000 (2270)
(c) Ethyl acetate	141786		1*	4	U112	D	5000 (2270)
(d) Ethylbenzene	100414		1000	1,2		C	1000 (454)
(e) Ethyl ether	60297		1*	4	U117	B	100 (45.4)
(f) Methyl isobutyl ketone	108101		1*	4	U161	D	5000 (2270)
(g) n-Butyl alcohol	71363		1*	4	U031	D	5000 (2270)
(h) Cyclohexanone	108941		1*	4	U057	D	5000 (2270)
(i) Methanol	67561		1*	4	U154	D	5000 (2270)
F004			1*	4	F004	C	1000 (454)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Cresols/Cresylic acid	1319773		1000	1,4	U052	C	1000 (454)
(b) Nitrobenzene	98953		1000	1,2,4	U169	C	1000 (454)
F005			1*	4	F005	B	100 (45.4)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:							
(a) Toluene	108883		1000	1,2,4	U220	C	1000 (454)
(b) Methyl ethyl ketone	78933		1*	4	U159	D	5000 (2270)
(c) Carbon disulfide	75150		5000	1,4	P022	B	100 (45.4)
(d) Isobutanol	78831		1*	4	U140	D	5000 (2270)
(e) Pyridine	110861		1*	4	U196	C	1000 (454)
F006			1*	4	F006	A	10 (4.54)
Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum, (2) tin plating on carbon steel, (3) zinc plating (segregated basis) on carbon steel, (4) aluminum or zinc-aluminum plating on carbon steel, (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel, and (6) chemical etching and milling of aluminum.							
F007			1*	4	F007	A	10 (4.54)
Spent cyanide plating bath solutions from electroplating operations.							
F008			1*	4	F008	A	10 (4.54)
Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.							
F009			1*	4	F009	A	10 (4.54)
Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.							
F010			1*	4	F010	A	10 (4.54)
Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.							
F011			1*	4	F011	A	10 (4.54)
Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations (except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning).							
F012			1*	4	F012	A	10 (4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.							
F019			1*	4	F019	A	10 (4.54)
Wastewater treatment sludges from the chemical conversion coating of aluminum.							
F020			1*	4	F020	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri-or-tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.)							
F021			1*	4	F021	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.							
F022			1*	4	F022	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.							
F023			1*	4	F023	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.)							
F024			1*	4	F024	X	1 (0.454)
Wastes, including but not limited to distillation residues, heavy ends, tars, and reactor cleanout wastes, from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent dessicants(sic), wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in Section 261.32.)							
F026			1*	4	F026	X	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.							
F027			1*	4	F027	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)							
F028			1*	4	F028	X	1 (0.454)
Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.							
K001			1*	4	K001	X	1 (0.454)
Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.							
K002			1*	4	K002		#
Wastewater treatment sludge from the production of chrome yellow and orange pigments.							
K003			1*	4	K003		#
Wastewater treatment sludge from the production of molybdate orange pigments.							
K004			1*	4	K004	A	10 (4.54)
Wastewater treatment sludge from the production of zinc yellow pigments.							
K005			1*	4	K005		#
Wastewater treatment sludge from the production of chrome green pigments.							
K006			1*	4	K006	A	10 (4.54)
Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).							
K007			1*	4	K007	A	10 (4.54)
Wastewater treatment sludge from the production of iron blue pigments.							
K008			1*	4	K008	A	10 (4.54)
Oven residue from the production of chrome oxide green pigments.							
K009			1*	4	K009	A	10 (4.54)
Distillation bottoms from the production of acetaldehyde from ethylene.							
K010			1*	4	K010	A	10 (4.54)
Distillation side cuts from the production of acetaldehyde from ethylene.							
K011			1*	4	K011	A	10 (4.54)
Bottom stream from the wastewater stripper in the production of acrylonitrile.							
K013			1*	4	K013	A	10 (4.54)
Bottom stream from the acetonitrile column in the production of acrylonitrile.							
K014			1*	4	K014	D	5000 (2270)
Bottoms from the acetonitrile purification column in the production of acrylonitrile.							
K015			1*	4	K015	A	10 (4.54)
Still bottoms from the distillation of benzyl chloride.							
K016			1*	4	K016	X	1 (0.454)
Heavy ends or distillation residues from the production of carbon tetrachloride.							
K017			1*	4	K017	A	10 (4.54)
Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.							
K018			1*	4	K018	X	1 (0 454)
Heavy ends from the fractionation column in ethyl chloride production.							
K019			1*	4	K019	X	1 (0.454)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. K020			1*	4	K020	X	1 (0.454)
Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. K021			1*	4	K021	A	10 (4.54)
Aqueous spent antimony catalyst waste from fluoromethanes production. K022			1*	4	K022	X	1 (0.454)
Distillation bottom tars from the production of phenol/acetone from cumene. K023			1*	4	K023	D	5000 (2270)
Distillation light ends from the production of phthalic anhydride from naphthalene. K024			1*	4	K024	D	5000 (2270)
Distillation bottoms from the production of phthalic anhydride from naphthalene. K025			1*	4	K025	A	10 (4.54)
Distillation bottoms from the production of nitrobenzene by the nitration of benzene. K026			1*	4	K026	C	1000 (454)
Stripping still tails from the production of methyl ethyl pyridines. K027			1*	4	K027	A	10 (4.54)
Centrifuge and distillation residues from toluene diisocyanate production. K028			1*	4	K028	X	1 (0.454)
Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. K029			1*	4	K029	X	1 (0.454)
Waste from the product steam stripper in the production of 1,1,1-trichloroethane. K030			1*	4	K030	X	1 (0.454)
Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. K031			1*	4	K031	X	1 (0.454)
By-product salts generated in the production of MSMA and cacodylic acid. K032			1*	4	K032	A	10 (4.54)
Wastewater treatment sludge from the production of chlordane. K033			1*	4	K033	A	10 (4.54)
Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. K034			1*	4	K034	A	10 (4.54)
Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. K035			1*	4	K035	X	1 (0.454)
Wastewater treatment sludges generated in the production of creosote. K036			1*	4	K036	X	1 (0.454)
Still bottoms from toluene reclamation distillation in the production of disulfoton. K037			1*	4	K037	X	1 (0.454)
Wastewater treatment sludges from the production of disulfoton. K038			1*	4	K038	A	10 (4.54)
Wastewater from the washing and stripping of phorate production. K039			1*	4	K039	A	10 (4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. K040			1*	4	K040	A	10 (4.54)
Wastewater treatment sludge from the production of phorate. K041			1*	4	K041	X	1 (0.454)
Wastewater treatment sludge from the production of toxaphene. K042			1*	4	K042	A	10 (4.54)
Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. K043			1*	4	K043	A	10 (4.54)
2,6-Dichlorophenol waste from the production of 2,4-D. K044			1*	4	K044	A	10 (4.54)
Wastewater treatment sludges from the manufacturing and processing of explosives. K045			1*	4	K045	A	10 (4.54)
Spent carbon from the treatment of wastewater containing explosives. K046			1*	4	K046	B	100 (45.4)
Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds. K047			1*	4	K047	A	10 (4.54)
Pink/red water from TNT operations. K048			1*	4	K048		#
Dissolved air flotation (DAF) float from the petroleum refining industry. K049			1*	4	K049		#
Slop oil emulsion solids from the petroleum refining industry. K050			1*	4	K050	A	10 (4.54)
Heat exchanger bundle cleaning sludge from the petroleum refining industry. K051			1*	4	K051		#
API separator sludge from the petroleum refining industry. K052			1*	4	K052	A	10 (4.54)
Tank bottoms (leaded) from the petroleum refining industry. K060			1*	4	K060	X	1 (0.454)
Ammonia still lime sludge from coking operations. K061			1*	4	K061		#
Emission control dust/sludge from the primary production of steel in electric furnaces. K062			1*	4	K062		#
Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332). K064			1*	4	K064		##
Acid plant blowdown slurry/sludge resulting from thickening of blowdown slurry from primary copper production. K065			1*	4	K065		##
Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities. K066			1*	4	K066		##

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.							
K069			1*	4	K069		#
Emission control dust/sludge from secondary lead smelting.							
K071			1*	4	K071	X	1 (0.454)
Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.							
K073			1*	4	K073	A	10 (4.54)
Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.							
K083			1*	4	K083	B	100 (45.4)
Distillation bottoms from aniline extraction.							
K084			1*	4	K084	X	1 (0.454)
Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.							
K085			1*	4	K085	A	10 (4.54)
Distillation or fractionation column bottoms from the production of chlorobenzenes.							
K086			1*	4	K086		#
Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.							
K087			1*	4	K087	B	100 (45.4)
Decanter tank tar sludge from coking operations.							
K088			1*	4	K088		#
Spent potliners from primary aluminum reduction.							
K090			1*	4	K090		#
Emission control dust or sludge from ferrochromiumsilicon production.							
K091			1	4	K091		#
Emission control dust or sludge from ferrochromium production.							
K093			1*	4	K093	D	5000 (2270)
Distillation light ends from the production of phthalic anhydride from ortho-xylene.							
K094			1*	4	K094	D	5000 (2270)
Distillation bottoms from the production of phthalic anhydride from ortho-xylene.							
K095			1*	4	K095	B	100 (45.4)
Distillation bottoms from the production of 1,1,1-trichloroethane.							
K096			1*	4	K096	B	100 (45.4)
Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.							
K097			1*	4	K097	X	1 (0.454)
Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.							
K098			1*	4	K098	X	1 (0.454)
Untreated process wastewater from the production of toxaphene.							
K099			1*	4	K099	A	10 (4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Untreated wastewater from the production of 2,4-D.							
K100			1*	4	K100		#
Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.							
K101			1*	4	K101	X	1 (0.454)
Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.							
K102			1*	4	K102	X	1 (0.454)
Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.							
K103			1*	4	K103	B	100 (45.4)
Process residues from aniline extraction from the production of aniline.							
K104			1*	4	K104	A	10 (4.54)
Combined wastewater streams generated from nitrobenzene/aniline production.							
K105			1*	4	K105	A	10 (4.54)
Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.							
K106			1*	4	K106	X	1 (0.454)
Wastewater treatment sludge from the mercury cell process in chlorine production.							
K111			1*	4	K111	A	10 (4.54)
Product washwaters from the production of dinitrotoluene via nitration of toluene.							
K112			1*	4	K112	A	10 (4.54)
Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.							
K113			1*	4	K113	A	10 (4.54)
Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.							
K114			1*	4	K114	A	10 (4.54)
Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.							
K115			1*	4	K115	A	10 (4.54)
Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.							
K116			1*	4	K116	A	10 (4.54)
Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.							
K117			1*	4	K117	X	1 (0.454)
Wastewater from the reaction vent gas scrubber in the production of ethylene bromide via bromination of ethene.							
K118			1*	4	K118	X	1 (0.454)
Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide.							
K123			1*	4	K123	A	10 (4.54)

TABLE 302.4—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

[Note: All Comments/Notes Are Located at the End of This Table]

Hazardous Substance	CASRN	Regulatory Synonyms	Statutory			Final RQ	
			RQ	Code †	RCRA Waste Number	Category	Pounds (Kg)
Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.							
K124			1*	4	K124	A	10 (4.54)
Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.							
K125			1*	4	K125	A	10 (4.54)
Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.							
K126			1*	4	K126	A	10 (4.54)
Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.							
K136			1*	4	K136	X	1 (0.454)
Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.							

† Indicates the statutory source as defined by 1, 2, 3, or 4 below.

‡ No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 100 micrometers (0.004 inches).

††† The RQ for asbestos is limited to friable forms only.

1—indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 311(b)(4).

2—indicates that the statutory source for designation of this hazardous substance under CERCLA is CWA Section 307(a).

3—indicates that the statutory source for designation of this hazardous substance under CERCLA is CAA Section 112.

4—Indicates that the statutory source for designation of this hazardous substance under CERCLA is RCRA Section 3001.

#*—indicates that the 1-pound RQ is a CERCLA statutory RQ.

# Indicates that the RQ is subject to change when the assessment of potential carcinogenicity is completed.

The Agency may adjust the statutory RQ for this hazardous substance in a future rulemaking; until then the statutory RQ applies.

§—The adjusted RQs for radionuclides may be found in Appendix B to this table.

**—indicates that no RQ is being assigned to the generic or broad class.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES

CASRN	Hazardous substance
50000	Formaldehyde.
50077	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a, 8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
	Mitomycin C.
50180	Cyclophosphamide.
	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide.
50293	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-.
	DDT.
	4,4'DDT.
50328	Benzo[a]pyrene.
	3,4-Benzopyrene.
50555	Reserpine.
	Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3 ,4,5-trimethoxybenzoyl)oxy]-, methyl ester (3beta, 16beta,17alpha,18beta,20alpha)-.
51285	Phenol, 2,4-dinitro-.
	2,4-Dinitrophenol.
51434	Epinephrine.
	1,2-Benzenediol,4-[1-hydroxy-2-(methylamino) ethyl]-.
51796	Carbamic acid, ethyl ester.
	Ethyl carbamate (urethane).
52686	Trichlorfon.
52857	Famphur.
	Phosphorothioic acid, O,[4-[(dimethylamino) sulfonyl]phenyl]O,O-dimethyl ester.
53703	Dibenz[a,h]anthracene.
	Dibenzo[a,h]anthracene.
	1,2:5,6-Dibenzanthracene.
53963	Acetamide, N-9H-fluoren-2-yl-.
	2-Acetylaminofluorene.
54115	Nicotine, & salts.
	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-.
55185	Ethanamine, N-ethyl-N-nitroso-.
	N-Nitrosodiethylamine.
55630	Nitroglycerine.
	1,2,3-Propanetriol, trinitrate-.
55914	Diisopropylfluorophosphate.
	Phosphorofluoridic acid, bis(1-methylethyl) ester.
56042	Methylthiouracil.
	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-.
56235	Carbon tetrachloride.
	Methane, tetrachloro-.
56382	Parathion.
	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester.
56495	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-.
	3-Methylcholanthrene.
56531	Diethylstilbestrol.
	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E).
56553	Benz[a]anthracene.
	Benzo[a]anthracene.
	1,2-Benzanthracene.
56724	Coumaphos.
57125	Cyanides (soluble salts and complexes) not otherwise specified.
57147	Hydrazine, 1,1-dimethyl-.
	1,1-Dimethylhydrazine.
57249	Strychnidin-10-one.
	Strychnine, & salts.
57749	Chlordane.
	Chlordane, alpha & gamma isomers.
	Chlordane, technical.
	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro- 2,3,3a,4,7,7a-hexahydro-.
57976	1,2-Benzanthracene, 7,12-dimethyl-.
	7,12-Dimethylbenz[a]anthracene.
58899	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha, 6beta)-.
	gamma - BHC.
	Hexachlorocyclohexane (gamma isomer).
	Lindane.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
58902	Phenol, 2,3,4,6-tetrachloro-.
	2,3,4,6-Tetrachlorophenol.
59507	p-Chloro-m-cresol.
	Phenol, 4-chloro-3-methyl-.
	4-Chloro-m-cresol.
60004	Ethylenediamine-tetraacetic acid (EDTA).
60117	Benzenamine, N,N-dimethyl-4-(phenylazo-).
	p-Dimethylaminoazobenzene.
60297	Ethane, 1,1'-oxybis-.
	Ethyl ether.
60344	Hydrazine, methyl-.
	Methyl hydrazine.
60515	Dimethoate.
	Phosphorodithioic acid, O,O-dimethyl S-[2(methylamino)-2-oxoethyl] ester.
60571	Dieldrin.
	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2, 2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta, 6aalpha,7beta, 7aalpha)-.
61825	Amitrole.
	1H-1,2,4-Triazol-3-amine.
62384	Mercury, (acetato-O)phenyl-.
	Phenylmercury acetate.
62442	Acetamide, N-(4-ethoxyphenyl)-.
	Phenacetin.
62500	Ethyl methanesulfonate.
	Methanesulfonic acid, ethyl ester.
62533	Aniline.
	Benzenamine.
62555	Ethanethioamide.
	Thioacetamide.
62566	Thiourea.
62737	Dichlorvos.
62748	Acetic acid, fluoro-, sodium salt.
	Fluoroacetic acid, sodium salt.
62759	Methanamine, N-methyl-N-nitroso-.
	N-Nitrosodimethylamine.
63252	Carbaryl.
64186	Formic acid.
64197	Acetic acid.
65850	Benzoic acid.
66751	Uracil mustard.
	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl) amino]-.
67561	Methanol.
	Methyl alcohol.
67641	Acetone.
	2-Propanone.
67663	Chloroform.
	Methane, trichloro-.
67721	Ethane, hexachloro-.
	Hexachloroethane.
70257	Guanidine, N-methyl-N'-nitro-N-nitroso-.
	MNNG.
70304	Hexachlorophene.
	Phenol, 2,2'-methylenebis[3,4,6-trichloro-.
71363	n-Butyl alcohol.
	1-Butanol.
71432	Benzene.
71556	Ethane, 1,1,1-trichloro-.
	Methyl chloroform.
	1,1,1-Trichloroethane.
72208	Endrin.
	Endrin, & metabolites.
	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha, 6abeta,7beta,7aalpha)-.
72435	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- methoxy-.
	Methoxychlor.
72548	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-.
	DDD.
	TDE.
	4,4' DDD.
72559	DDE.
	4,4' DDE.
72571	Trypan blue.
	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(l,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.
74839	Methane, bromo-.
	Methyl bromide.
74873	Methane, chloro-.
	Methyl chloride.
74884	Methane, iodo-.
	Methyl iodide.
74895	Monomethylamine.
74908	Hydrocyanic acid.
	Hydrogen cyanide.
74931	Methanethiol.
	Methylmercaptan.
	Thiomethanol.
74953	Methane, dibromo-.
	Methylene bromide.
75003	Chloroethane.
75014	Ethene, chloro-.
	Vinyl chloride.
75047	Monoethylamine.
75058	Acetonitrile.
75070	Acetaldehyde.
	Ethanal.
75092	Methane, dichloro-.
	Methylene chloride.
75150	Carbon disulfide.
75207	Calcium carbide.
75218	Ethylene oxide.
	Oxirane.
75252	Bromoform.
	Methane, tribromo-.
75274	Dichlorobromomethane.
75343	Ethane, 1,1-dichloro-.
	Ethylidene dichloride.
	1,1-Dichloroethane.
75354	Ethene, 1,1-dichloro-.
	Vinylidene chloride.
	1,1-Dichloroethylene.
75365	Acetyl chloride.
75445	Carbonic dichloride.
	Phosgene.
75503	Trimethylamine.
75558	Aziridine, 2-methyl-.
	1,2-Propylenimine.
75569	Propylene oxide.
75605	Arsinic acid, dimethyl-.
	Cacodylic acid.
75649	tert-Butylamine.
75694	Methane, trichlorofluoro-.
	Trichloromonofluoromethane.
75718	Dichlorodifluoromethane.
	Methane, dichlorodifluoro-.
75865	Acetone cyanohydrin.
	Propanenitrile, 2-hydroxy-2-methyl-.
	2-Methyllactonitrile.
75876	Acetaldehyde, trichloro-.
	Chloral.
75990	2,2-Dichloropropionic acid.
76017	Ethane, pentachloro-.
	Pentachloroethane.
76448	Heptachlor.
	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-.
77474	Hexachlorocyclopentadiene.
	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-.
77781	Dimethyl sulfate.
	Sulfuric acid, dimethyl ester.
78002	Plumbane, tetraethyl-.
	Tetraethyl lead.
78591	Isophorone.
78795	Isoprene.
78819	iso-Butylamine.
78831	Isobutyl alcohol.
	1-Propanol, 2-methyl-.
78875	Propane, 1,2-dichloro-.
	Propylene dichloride.
	1,2-Dichloropropane.
78886	2,3-Dichloropropene.
78933	Methyl ethyl ketone (MEK).
	2-Butanone.
78999	1,1-Dichloropropane.
79005	Ethane, 1,1,2-trichloro-.
	1,1,2-Trichloroethane.
79016	Ethene, trichloro-.
	Trichloroethene.
	Trichloroethylene-.
79061	Acrylamide.
	2-Propenamide.
79094	Propionic acid.
79107	Acrylic acid.
	2-Propenoic acid.
79196	Hydrazinecarbothioamide.
	Thiosemicarbazide.
79221	Carbonochloridic acid, methyl ester.
	Methyl chlorocarbonate.
	Methyl chloroformate.
79312	iso-Butyric acid.
79345	Ethane, 1,1,2,2-tetrachloro-.
	1,1,2,2-Tetrachloroethane.
79447	Carbamic chloride, dimethyl-.
	Dimethylcarbamoyl chloride.
79469	Propane, 2-nitro-.
	2-Nitropropane.
80159	alpha,alpha-Dimethylbenzylhydroperoxide.
	Hydroperoxide, 1-methyl-1-phenylethyl-.
80626	Methyl methacrylate.
	2-Propenoic acid, 2-methyl-, methyl ester.
81072	Saccharin and salts.
	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide.
81812	Warfarin, & salts, when present at concentrations greater than 0.3%.
	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl -butyl)-, & salts, when present at concentrations greater than 0.3%.
82688	Benzene, pentachloronitro-.
	Pentachloronitrobenzene (PCNB).
83329	Acenaphthene.
84662	Diethyl phthalate.
	1,2-Benzenedicarboxylic acid, diethyl ester.
84742	Di-n-butyl phthalate.
	Dibutyl phthalate.
	n-Butyl phthalate.
	1,2-Benzenedicarboxylic acid, dibutyl ester.
85007	Diquat.
85018	Phenanthrene.
85449	Phthalic anhydride.
	1,3-Isobenzofurandione.
85687	Butyl benzyl phthalate.
86306	N-Nitrosodiphenylamine.
86500	Guthion.
86737	Fluorene.
86884	alpha-Naphthylthiourea.
	Thiourea, 1-naphthalenyl-.
87650	Phenol, 2,6-dichloro-.
	2,6-Dichlorophenol.
87683	Hexachlorobutadiene.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-.
87865	Pentachlorophenol.
	Phenol, pentachloro-.
88062	Phenol, 2,4,6-trichloro-.
	2,4,6-Trichlorophenol.
88722	o-Nitrotoluene.
88755	o-Nitrophenol.
	2-Nitrophenol.
88857	Dinoseb.
	Phenol, 2-(1-methylpropyl)-4,6-dinitro.
91087	Benzene, 1,3-diisocyanatomethyl-.
	Toluene diisocyanate.
91203	Naphthalene.
91225	Quinoline.
91587	beta-Chloronaphthalene.
	Naphthalene, 2-chloro-.
	2-Chloronaphthalene.
91598	beta-Naphthylamine.
	2-Naphthalenamine.
91805	Methapyrilene.
	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'- (2-thienylmethyl)-.
91941	[1,1'-Biphenyl]-4,4'diamine,3,3'dichloro-.
	3,3'-Dichlorobenzidine.
92875	(1,1'-Biphenyl)-4,4'diamine.
	Benzidine.
93721	Propionic acid, 2-(2,4,5-trichlorophenoxy)-.
	Silvex (2,4,5-TP).
	2,4,5-TP acid.
93765	Acetic acid, (2,4,5-trichlorophenoxy).
	2,4,5-T.
	2,4,5-T acid.
93798	2,4,5-T esters.
94111	2,4-D Ester.
94586	Dihydrosafrole.
	1,3-Benzodioxole, 5-propyl-.
94597	Safrole.
	1,3-Benzodioxole, 5-(2-propenyl)-.
94757	Acetic acid (2,4-dichlorophenoxy)-.
	2,4-D Acid.
	2,4-D, salts and esters.
94791	2,4-D Ester.
94804	2,4-D Ester.
95476	o-Benzene, dimethyl.
	o-Xylene.
95487	o-Cresol.
	o-Cresylic acid.
95501	Benzene, 1,2-dichloro-.
	o-Dichlorobenzene.
	1,2-Dichlorobenzene.
95534	Benzenamine, 2-methyl-.
	o-Toluidine.
95578	o-Chlorophenol.
	Phenol, 2-chloro-.
	2-Chlorophenol.
95807	Benzenediamine, ar-methyl-.
	Toluenediamine
95943	Benzene, 1,2,4,5-tetrachloro-.
	1,2,4,5-Tetrachlorobenzene.
95954	Phenol, 2,4,5-trichloro-.
	2,4,5-Trichlorophenol.
96128	Propane, 1,2-dibromo-3-chloro-.
	1,2-Dibromo-3-chloropropane.
96184	1,2,3-Trichloropropane.
96457	Ethylenethiourea.
	2-Imidazolidinethione.
97632	Ethyl methacrylate.
	2-Propenoic acid, 2-methyl-, ethyl ester.
98011	Furfural.
	2-Furancarboxaldehyde.
98077	Benzene, (trichloromethyl)-.
	Benzotrichloride.
98099	Benzenesulfonic acid chloride.
	Benzenesulfonyl chloride.
98828	Benzene, 1-methylethyl-.
	Cumene.
98862	Acetophenone.
	Ethanone, 1-phenyl-.
98873	Benzal chloride.
	Benzene, dichloromethyl-.
98884	Benzoyl chloride.
98953	Benzene, nitro-.
	Nitrobenzene.
99081	m-Nitrotoluene.
99354	Benzene, 1,3,5-trinitro-.
	1,3,5-Trinitrobenzene.
99558	Benzenamine, 2-methyl-5-nitro-.
	5-Nitro-o-toluidine.
99650	m-Dinitrobenzene.
99990	p-Nitrotoluene.
100016	Benzenamine, 4-nitro-.
	p-Nitroaniline.
100027	p-Nitrophenol.
	Phenol, 4-nitro-.
	4-Nitrophenol.
100254	p-Dinitrobenzene.
100414	Ethylbenzene.
100425	Styrene.
100447	Benzene, chloromethyl-.
	Benzyl chloride.
100470	Benzonitrile.
100754	N-Nitrosopiperidine.
	Piperidine, 1-nitroso-.
101144	Benzenamine, 4,4'-methylenebis(2-chloro-.
	4,4'-Methylenebis(2-chloroaniline).
101553	Benzene, 1-bromo-4-phenoxy-.
	4-Bromophenyl phenyl ether.
103855	Phenylthiourea.
	Thiourea, phenyl-.
105464	sec-Butyl acetate.
105679	Phenol, 2,4-dimethyl-.
	2,4-Dimethylphenol.
106423	p-Benzene, dimethyl.
	p-Xylene.
106445	p-Cresol.
	p-Cresylic acid.
106467	Benzene, 1,4-dichloro-.
	p-Dichlorobenzene.
	1,4-Dichlorobenzene.
106478	Benzenamine, 4-chloro-.
	p-Chloroaniline.
106490	Benzenamine, 4-methyl-.
	p-Toluidine.
106503	Phenylenediamine (para-isomer).
106514	p-Benzoquinone.
	2,5-Cyclohexadiene-1,4-dione.
106898	Epichlorohydrin.
	Oxirane, (chloromethyl)-.
106934	Ethane, 1,2-dibromo-.
	Ethylene dibromide.
107028	Acrolein.
	2-Propenal.
107051	Allyl chloride.
107062	Ethane, 1,2-dichloro-.
	Ethylene dichloride.
	1,2-Dichloroethane.
107108	n-Propylamine.
	1-Propanamine.
107120	Ethyl cyanide.
	Propanenitrile.
107131	Acrylonitrile.
	2-Propenenitrile.
107153	Ethylenediamine.
107186	Allyl alcohol.
	2-Propen-1-ol.
107197	Propargyl alcohol.
	2-Propyn-1-ol.
107200	Acetaldehyde, chloro-.
	Chloroacetaldehyde.
107302	Chloromethyl methyl ether.
	Methane, chloromethoxy-.
107493	Diphosphoric acid, tetraethyl ester.
	Tetraethyl pyrophosphate.
107926	Butyric acid.
108054	Vinyl acetate.
	Vinyl acetate monomer.
108101	Methyl isobutyl ketone.
	4-Methyl-2-pentanone.
108247	Acetic anhydride.
108316	Maleic anhydride.
	2,5-Furandione.
108383	m-Benzene, dimethyl.
	m-Xylene.
108394	m-Cresol.
	m-Cresylic acid.
108463	Resorcinol.
	1,3-Benzenediol.
108601	Dichloroisopropyl ether.
	Propane, 2,2'-oxybis[2-chloro-.
108883	Benzene, methyl-.
	Toluene.
108907	Benzene, chloro-.
	Chlorobenzene.
108941	Cyclohexanone.
108952	Benzene, hydroxy-.
	Phenol.
108985	Benzenethiol.
	Thiophenol.
109068	Pyridine, 2-methyl-.
	2-Picoline.
109739	Butylamine.
109773	Malononitrile.
	Propanedinitrile.
109897	Diethylamine.
109999	Furan, tetrahydro-.
	Tetrahydrofuran.
110009	Furan.
	Furfuran.
110167	Maleic acid.
110178	Fumaric acid.
110190	Iso-Butyl acetate.
110758	Ethene, 2-chloroethoxy-.
	2-Chloroethyl vinyl ether.
110805	Ethanol, 2-ethoxy-.
	Ethylene glycol monoethyl ether.
110827	Benzene, hexahydro-.
	Cyclohexane.
110861	Pyridine.
111444	Bis (2-chloroethyl) ether.
	Dichloroethyl ether.
	Ethane, 1,1'-oxybis[2-chloro-.
111546	Carbamodithioic acid, 1,2-ethanediylbis, salts & esters.
	Ethylenebisdithiocarbamic acid, salts & esters.
111911	Bis(2-chloroethoxy) methane.
	Dichloromethoxy ethane.
	Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-.
115026	Azaserine.
	L-Serine, diazoacetate (ester).
115297	Endosulfan.
	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a- hexahydro-, 3-oxide.
115322	Dicofol.
116063	Aldicarb.
	Propanal, 2-methyl-2-(methylthio)-, 0-[(methylamino)carbonyl]oxime.
117806	Dichlone.
117817	Bis (2-ethylhexyl)phthalate.
	Diethylhexyl phthalate.
	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)]ester.
117840	Di-n-octyl phthalate.
	1,2-Benzenedicarboxylic acid, dioctyl ester.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
118741	Benzene, hexachloro-.
	Hexachlorobenzene.
119904	[1,1'-Biphenyl]-4,4'diamine,3,3'dimethoxy-.
	3,3'-Dimethoxybenzidine.
119937	[1,1'Biphenyl]-4,4'-diamine,3,3'-dimethyl-.
	3,3'-Dimethylbenzidine.
120127	Anthracene.
120581	Isosafrole.
	1,3-Benzodioxole, 5-)1-propenyl)-.
120821	1,2,4-Trichlorobenzene.
120832	Phenol, 2,4-dichloro-.
	2,4-Dichlorophenol.
121142	Benzene, 1-methyl-2,4-dinitro-.
	2,4-Dinitrotoluene.
121211	Pyrethrins.
121299	Pyrethrins.
121448	Triethylamine.
121755	Malathion.
122098	alpha,alpha-Dimethylphenethylamine.
	Benzeneethanamine, alpha,alpha-dimethyl-.
122394	Diphenylamine.
122667	Hydrazine, 1,2-diphenyl-.
	1,2-Diphenylhydrazine.
123331	Maleic hydrazide.
	3,6-Pyridazinedione, 1,2-dihydro-.
123626	Propionic anhydride.
123637	Paraldehyde.
	1,3,5-Trioxane, 2,4,6-trimethyl-.
123739	Crotonaldehyde.
	2-Butenal.
123864	Butyl acetate.
123911	1,4-Diethylenedioxide.
	1,4-Dioxane.
123922	iso-Amyl acetate.
124049	Adipic acid.
124403	Dimethylamine.
	Methanamine, N-methyl-.
124414	Sodium methylate.
124481	Chlorodibromomethane.
126727	Tris(2,3-dibromopropyl) phosphate.
	1-Propanol, 2,3-dibromo-, phosphate (3:1).
126987	Methacrylonitrile.
	2-Propenenitrile, 2-methyl-.
126998	2-Chloro-1,3-butadiene.
127184	Ethene, tetrachloro-.
	Perchloroethylene.
	Tetrachloroethene.
	Tetrachloroethylene.
127822	Zinc phenolsulfonate.
129000	Pyrene.
130154	1,4-Naphthalenedione.
	1,4-Naphthoquinone.
131113	Dimethyl phthalate.
	1,2-Benzenedicarboxylic acid, dimethyl ester.
131748	Ammonium picrate.
	Phenol, 2,4,6-trinitro-, ammonium salt.
131895	Phenol, 2-cyclohexyl-4,6-dinitro-.
	2-Cyclohexyl-4,6-dinitrophenol.
133062	Captan.
134327	alpha-Naphthylamine.
	1-Naphthalenamine.
137268	Thioperoxydicarbonic diamide ([H2N)C(S)]2S2, tetramethyl-.
	Thiram.
140885	Ethyl acrylate.
	2-Propenoic acid, ethyl ester.
141786	Acetic acid, ethyl ester.
	Ethyl acetate.
142289	1,3-Dichloropropane.
142712	Cupric acetate.
142847	Dipropylamine.
	1-Propanamine, N-propyl-.
143339	Sodium cyanide.
	Sodium cyanide Na(CN).
143500	Kepone.
	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachloroctahydro-.
145733	Endothall.
	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid.
148823	L-Phenylalanine, 4-[bis(2-chloroethyl) aminol].
	Melphalan.
151508	Potassium cyanide.
	Potassium cyanide K(CN).
151564	Aziridine.
	Ethylenimine.
152169	Diphosphoramide, octamethyl-.
	Octamethylpyrophosphoramide.
156605	Ethene, 1,2-dichloro- (E).
	1,2-Dichloroethylene.
189559	Benzo [rst]pentaphene.
	Dibenz[a,i]pyrene.
191242	Benzo[ghi]perylene.
193395	Indeno(1,2,3-cd)pyrene.
	1,10-(1,2-Phenylene)pyrene.
205992	Benzo[b]fluoranthene.
206440	Benzo[j,k]fluorene.
	Fluoranthene.
207089	Benzo(k)fluoranthene.
208968	Acenaphthylene.
218019	Chrysene.
	1,2-Benzphenanthrene.
225514	Benz[c]acridine.
297972	O,O-Diethyl O-pyrazinyl phosphorothioate.
	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.
298000	Methyl parathion.
	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester.
298022	Phorate.
	Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester.
298044	Disulfoton.
	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester.
300765	Naled.
301042	Acetic acid, lead(2+) salt.
	Lead acetate.
302012	Hydrazine.
303344	Lasiocarpine.
	2-Butenoic acid, 2-methyl-, 7[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-.
305033	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-.
	Chlorambucil.
309002	Aldrin.
	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-.
311455	Diethyl-p-nitrophenyl phosphate.
	Phosphoric acid, diethyl 4-nitrophenyl ester.
315184	Mexacarbate.
319846	alpha—BHC.
319857	beta—BHC.
319868	delta—BHC.
329715	2,5-Dinitrophenol.
330541	Diuron.
333415	Diazinon.
353504	Carbon oxyfluoride.
	Carbonic difluoride.
357573	Brucine.
	Strychnidin-10-one, 2,3-dimethoxy-.
460195	Cyanogen.
	Ethanedinitrile.
465736	Isodrin.
	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-.
492808	Auramine.
	Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl(N,N-D,methyl-)-.
494031	Chlornaphazine.
	Naphthalenamine, N,N'-bis(2-chloroethyl)-.
496720	Benzenediamine, ar-methyl-.
	Toluenediamine.
504245	4-Aminopyridine.
	4-Pyridinamine.
504609	1-Methylbutadiene.
	1,3-Pentadiene.
506616	Argentate(1-), bis(cyano-C)-,potassium.
	Potassium silver cyanide.
506649	Silver cyanide.
	Silver cyanide Ag(CN).
506683	Cyanogen bromide.
	Cyanogen bromide (CN)Br.
506774	Cyanogen chloride.
	Cyanogen chloride (CN)Cl.
506876	Ammonium carbonate.
506967	Acetyl bromide.
509148	Methane, tetranitro-.
	Tetranitromethane.
510156	Benzeneacetic acid,4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester.
	Chlorobenzilate.
513495	sec-Butylamine.
528290	o-Dinitrobenzene.
534521	Phenol, 2-methyl-4,6-dinitro-.
	4,6-Dinitro-o-cresol and salts
540738	Hydrazine, 1,2-dimethyl-.
	1,2-Dimethylhydrazine.
540885	tert-Butyl acetate.
541093	Uranyl acetate.
541537	Dithiobiuret.
	Thioimidodicarbonic diamide [(H2N)C(S)]2NH.
541731	Benzene, 1,3-dichloro-.
	m-Dichlorobenzene.
	1,3-Dichlorobenzene.
542621	Barium cyanide.
542756	1-Propene, 1,3-dichloro-.
	1,3-Dichloropropene.
542767	Propanenitrile, 3-chloro-.
	3-Chloropropionitrile.
542881	Dichloromethyl ether.
	Methane, oxybis(chloro)-.
543908	Cadmium acetate.
544183	Cobaltous formate.
544923	Copper cyanide CuCN.
	Copper cyanide.
554847	m-Nitrophenol.
557197	Nickel cyanide.
	Nickel cyanide Ni(CN)2.
557211	Zinc cyanide.
	Zinc cyanide Zn(CN)2.
557346	Zinc acetate.
557415	Zinc formate.
563122	Ethion.
563688	Acetic acid, thallium(1+) salt.
	Thallium(I) acetate.
573568	2,6-Dinitrophenol.
584849	Benzene, 1,3-diisocyanatomethyl-.
	Toluene diisocyanate.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
591082	Acetamide, N-(aminothioxomethyl)-.
	1-Acetyl-2-thiourea.
592018	Calcium cyanide.
	Calcium cyanide Ca(CN)2.
592041	Mercuric cyanide.
592858	Mercuric thiocyanate.
592870	Lead thiocyanate.
594423	Methanesulfenyl chloride, trichloro-.
	Trichloromethanesulfenyl chloride.
598312	Bromoacetone.
	2-Propanone, 1-bromo-.
606202	Benzene, 1-methyl-1,3-dinitro-.
	2,6-Dinitrotoluene.
608731	HEXACHLOROCYCLOHEXANE (all isomers).
608935	Benzene, pentachloro-.
	Pentachlorobenzene.
609198	3,4,5-Trichlorophenol.
610399	3,4-Dinitrotoluene.
615532	Carbamic acid, methylnitroso-, ethyl ester.
	N-Nitroso-N-methylurethane.
616239	n-,2,3 Dichloropropanol.
621647	Di-n-propylnitrosamine.
	1-Propanamine, N-nitroso-N-propyl-.
624839	Methane, isocyanato-.
	Methyl isocyanate.
625161	tert-Amyl acetate.
626380	sec-Amyl acetate.
628637	Amyl acetate.
628864	Fulminic acid, mercury(2+)salt.
	Mercury fulminate.
630104	Selenourea.
630206	Ethane, 1,1,1,2-tetrachloro-.
	1,1,1,2-Tetrachloroethane.
631618	Ammonium acetate.
636215	Benzenamine, 2-methyl-, hydrochloride.
	o-Toluidine hydrochloride.
640197	Acetamide, 2-fluoro-.
	Fluoroacetamide.
684935	N-Nitroso-N-methylurea.
	Urea, N-methyl-N-nitroso.
692422	Arsine, diethyl-.
	Diethylarsine.
696286	Arsonous dichloride, phenyl-.
	Dichlorophenylarsine.
757584	Hexaethyl tetraphosphate.
	Tetraphosphoric acid, hexaethyl ester.
759739	N-Nitroso-N-ethylurea.
	Urea, N-ethyl-N-nitroso-.
764410	1,4-Dichloro-2-butene.
	2-Butene, 1,4-dichloro-.
765344	Glycidylaldehyde.
	Oxiranecarboxyaldehyde.
815827	Cupric tartrate.
823405	Benzenediamine, ar-methyl-.
	Toluenediamine.
924163	N-Nitrosodi-n-butylamine.
	1-Butanamine, N-butyl-N-nitroso-.
930552	N-Nitrosopyrrolidine.
	Pyrrolidine, 1-nitroso-.
933755	2,3,6-Trichlorophenol.
933788	2,3,5-Trichlorophenol.
959988	alpha-Endosulfan.
1024573	Heptachlor epoxide.
1031078	Endosulfan sulfate.
1066304	Chromic acetate.
1066337	Ammonium bicarbonate.
1072351	Lead stearate.
1111780	Ammonium carbamate.
1116547	Ethanol, 2,2'-(nitrosoimino)bis-.
	N-Nitrosodiethanolamine.
1120714	1,2-Oxathiolane, 2,2-dioxide
	1,3-Propane sultone.
1185575	Ferric ammonium citrate.
1194656	Dichlobenil.
1300716	Xylenol.
1303282	Arsenic oxide As2O5.
	Arsenic pentoxide.
1303328	Arsenic disulfide.
1303339	Arsenic trisulfide.
1309644	Antimony trioxide.
1310583	Potassium hydroxide.
1310732	Sodium hydroxide.
1314325	Thallic oxide.
	Thallium oxide Tl2O3.
1314621	Vanadium oxide V2O5.
	Vanadium pentoxide.
1314803	Phosphorus pentasulfide.
	Phosphorus sulfide.
	Sulfur phosphide.
1314847	Zinc phosphide.
	Zinc phosphide Zn3P2, when present at concentrations greater than 10%.
1314870	Lead sulfide.
1319728	2,4,5-T amines.
1319773	Cresol(s).
	Cresylic acid.
	Phenol, methyl-.
1320189	2,4-D Ester.
1321126	Nitrotoluene.
1327522	Arsenic acid.
	Arsenic acid H3AsO4.
1327533	Arsenic oxide As2O3.
	Arsenic trioxide.
1330207	Benzene, dimethyl.
	Xylene (mixed).
1332076	Zinc borate.
1332214	Asbestos.
1333831	Sodium bifluoride.
1335326	Lead subacetate.
	Lead, bis(acetato-O)tetrahydroxytri.
1336216	Ammonium hydroxide.
1336363	Polychlorinated Biphenyls (PCBs).
1338234	Methyl ethyl ketone peroxide.
	2-Butanone peroxide.
1338245	Naphthenic acid.
1341497	Ammonium bifluoride.
1464535	1,2:3,4-Diepoxybutane.
	2,2'-Bioxirane.
1563662	Carbofuran.
1615801	Hydrazine, 1,2-diethyl-.
	N,N'-Diethylhydrazine.
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD).
1762954	Ammonium thiocyanate.
1863634	Ammonium benzoate.
1888717	Hexachloropropene.
	1-Propene, 1,1,2,3,3,3-hexachloro-.
1918009	Dicamba.
1928387	2,4-D Ester.
1928478	2,4,5-T esters.
1928616	2,4-D Ester.
1929733	2,4-D Ester.
2008460	2,4,5-T amines.
2032657	Mercaptodimethur.
2303164	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester.
	Diallate.
2312358	Propargite.
2545597	2,4,5-T esters.
2763964	Muscimol.
	3(2H)-Isoxazolone, 5-(aminomethyl)-.
	5-(Aminomethyl)-3-isoxazolol.
2764729	Diquat
2921882	Chlorpyrifos.
2944674	Ferric ammonium oxalate.
2971382	2,4-D Ester.
3012655	Ammonium citrate, dibasic.
3164292	Ammonium tartrate.
3165933	Benzenamine, 4-chloro-2-methyl-, hydrochloride.
	4-Chloro-o-toluidine, hydrochloride.
3251238	Cupric nitrate.
3288582	O,O-Diethyl S-methyl dithiophosphate.
	Phosphorodithioic acid, O,O-diethyl S-methyl ester.
3486359	Zinc carbonate.
3689245	Tetraethyldithiopyrophosphate.
	Thiodiphosphoric acid, tetraethyl ester.
3813147	2,4,5-T amines.
4170303	Crotonaldehyde.
	2-Butenal.
4549400	N-Nitrosomethylvinylamine.
	Vinylamine, N-methyl-N-nitroso-.
5344821	Thiourea, (2-chlorophenyl)-.
	1-(o-Chlorophenyl)thiourea.
5893663	Cupric oxalate.
5972736	Ammonium oxalate.
6009707	Ammonium oxalate.
6369966	2,4,5-T amines.
6369977	2,4,5-T amines.
6533739	Carbonic acid, dithallium(1+) salt.
	Thallium(I) carbonate.
7005723	4-Chlorophenyl phenyl ether.
7421934	Endrin aldehyde.
7428480	Lead stearate.
7439921	Lead.
7439976	Mercury.
7440020	Nickel.
7440224	Silver.
7440235	Sodium.
7440280	Thallium.
7440360	Antimony.
7440382	Arsenic.
7440417	Beryllium.
	Beryllium dust.
7440439	Cadmium.
7440473	Chromium.
7440508	Copper.
7440666	Zinc.
7446084	Selenium dioxide.
	Selenium oxide.
7446142	Lead sulfate.
7446186	Sulfuric acid, dithallium(1+) salt.
	Thallium(I) sulfate.
7446277	Lead phosphate.
	Phosphoric acid, lead(2+) salt (2:3).
7447394	Cupric chloride.
7488564	Selenium sulfide.
	Selenium sulfide SeS2.
7558794	Sodium phosphate, dibasic.
7601549	Sodium phosphate, tribasic.
7631892	Sodium arsenate.
7631905	Sodium bisulfite.
7632000	Sodium nitrite.
7645252	Lead arsenate.
7646857	Zinc chloride.
7647010	Hydrochloric acid.
	Hydrogen chloride.
7647189	Antimony pentachloride.
7664382	Phosphoric acid.
7664393	Hydrofluoric acid.
	Hydrogen fluoride.
7664417	Ammonia.
7664939	Sulfuric acid.
7681494	Sodium fluoride.
7681529	Sodium hypochlorite.
7697372	Nitric acid.
7699458	Zinc bromide.
7705080	Ferric chloride.
7718549	Nickel chloride.
7719122	Phosphorus trichloride.
7720787	Ferrous sulfate.
7722647	Potassium permanganate.
7723140	Phosphorus.
7733020	Zinc sulfate.
7738945	Chromic acid.
7758294	Sodium phosphate, tribasic.
7758943	Ferrous chloride.
7758954	Lead chloride.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
7758987	Cupric sulfate.
7761888	Silver nitrate.
7773060	Ammonium sulfamate.
7775113	Sodium chromate.
7778394	Arsenic acid.
	Arsenic acid H3As04.
7778441	Calcium arsenate.
7778509	Potassium bichromate.
7778543	Calcium hypochlorite.
7779864	Zinc hydrosulfite.
7779886	Zinc nitrate.
7782414	Fluorine.
7782492	Selenium.
7782505	Chlorine.
7782630	Ferrous sulfate.
7782823	Sodium selenite.
7782867	Mercurous nitrate.
7783008	Selenious acid.
7783064	Hydrogen sulfide.
	Hydrogen sulfide H2S.
7783359	Mercuric sulfate.
7783462	Lead fluoride.
7783495	Zinc fluoride.
7783508	Ferric fluoride.
7783564	Antimony trifluoride.
7784341	Arsenic trichloride.
7784409	Lead arsenate.
7784410	Potassium arsenate.
7784465	Sodium arsenite.
7785844	Sodium phosphate, tribasic.
7786347	Mevinphos.
7786814	Nickel sulfate.
7787475	Beryllium chloride.
7787497	Beryllium fluoride.
7787555	Beryllium nitrate.
7788989	Ammonium chromate.
7789006	Potassium chromate.
7789062	Strontium chromate.
7789095	Ammonium bichromate.
7789426	Cadmium bromide.
7789437	Cobaltous bromide.
7789619	Antimony tribromide.
7790945	Chlorosulfonic acid.
7791120	Thallium chloride TlCl.
	Thallium(I) chloride.
7803512	Phosphine.
7803556	Ammonium vanadate.
	Vanadic acid, ammonium salt.
8001352	Camphene, octachloro-
	Toxaphene.
8001589	Creosote.
8003198	Dichloropropane—Dichloropropene (mixture).
8003347	Pyrethrins.
8014957	Sulfuric acid.
10022705	Sodium hypochlorite.
10025873	Phosphorus oxychloride.
10025919	Antimony trichloride.
10026116	Zirconium tetrachloride.
10028225	Ferric sulfate.
10031591	Sulfuric acid, dithallium(1+) salt.
	Thallium(I) sulfate.
10039324	Sodium phosphate, dibasic.
10043013	Aluminum sulfate.
10045893	Ferrous ammonium sulfate.
10045940	Mercuric nitrate.
10049055	Chromous chloride.
10099748	Lead nitrate.
10101538	Chromic sulfate.
10101630	Lead iodide.
10101890	Sodium phosphate, tribasic.
10102064	Uranyl nitrate.
10102188	Sodium selenite.
10102439	Nitric oxide.
	Nitrogen oxide NO.
10102440	Nitrogen dioxide.
	Nitrogen oxide NO2.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
10102451	Nitric acid, thallium(1+) salt.
	Thallium(I) nitrate.
10102484	Lead arsenate.
10108642	Cadmium chloride.
10124502	Potassium arsenite.
10124568	Sodium phosphate, tribasic.
10140655	Sodium phosphate, dibasic.
10192300	Ammonium bisulfite.
10196040	Ammonium sulfite.
10361894	Sodium phosphate, tribasic.
10380297	Cupric sulfate, ammoniated.
10415755	Mercurous nitrate.
10421484	Ferric nitrate.
10544726	Nitrogen dioxide.
	Nitrogen oxide NO2.
10588019	Sodium bichromate.
11096825	Aroclor 1260.
	Polychlorinated Biphenyls (PCBs).
11097691	Aroclor 1254.
	Polychlorinated Biphenyls (PCBs).
11104282	Aroclor 1221.
	Polychlorinated Biphenyls (PCBs).
11115745	Chromic acid.
11141165	Aroclor 1232.
	Polychlorinated Biphenyls (PCBs).
12002038	Cupric acetoarsenite.
12039520	Selenious acid, dithallium(1+) salt.
	Thallium selenite.
12054487	Nickel hydroxide.
12125018	Ammonium fluoride.
12125029	Ammonium chloride.
12135761	Ammonium sulfide.
12672296	Aroclor 1248.
	Polychlorinated Biphenyls (PCBs).
12674112	Aroclor 1016.
	Polychlorinated Biphenyls (PCBs).
12771083	Sulfur monochloride.
13463393	Nickel carbonyl.
	Nickel carbonyl Ni(CO)4, (T-4)-.
13560991	2,4,5-T salts.
13597994	Beryllium nitrate.
13746899	Zirconium nitrate.
13765190	Calcium chromate.
	Chromic acid H2CrO4, calcium salt.
13814965	Lead fluoborate.
13826830	Ammonium fluoborate.
13952846	sec-Butylamine.
14017415	Cobaltous sulfamate.
14216752	Nickel nitrate.
14258492	Ammonium oxalate.
14307358	Lithium chromate.
14307438	Ammonium tartrate.
14639975	Zinc ammonium chloride.
14639986	Zinc ammonium chloride.
14644612	Zirconium sulfate.
15699180	Nickel ammonium sulfate.
15739807	Lead sulfate.
15950660	2,3,4-Trichlorophenol.
16721805	Sodium hydrosulfide.
16752775	Ethanimidothioic acid, N-[[(methylamino)carbonyl] oxy]-, methyl ester.
	Methomyl.
16871719	Zinc silicofluoride.
16919190	Ammonium silicofluoride.
16923958	Zirconium potassium fluoride.
18883664	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-.
	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-.
	Streptozotocin.

APPENDIX A—SEQUENTIAL CAS REGISTRY NUMBER LIST OF CERCLA HAZARDOUS SUBSTANCES—Continued

CASRN	Hazardous substance
20816120	Osmium oxide OsO4 (T-4)-.
	Osmium tetroxide.
20830813	Daunomycin.
	5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-,(8S-cis)-.
20859738	Aluminum phosphide.
23950585	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-.
	Pronamide.
25154545	Dinitrobenzene (mixed).
25154556	Nitrophenol (mixed).
25155300	Sodium dodecylbenzenesulfonate.
25167822	Trichlorophenol.
25168154	2,4,5-T esters.
25168267	2,4-D Ester.
25321146	Dinitrotoluene.
25321226	Dichlorobenzene.
25376458	Benzenediamine, ar-methyl-.
	Toluenediamine.
25550587	Dinitrophenol.
26264062	Calcium dodecylbenzenesulfonate.
26471625	Benzene, 1,3-diisocyanatomethyl-.
	Toluene diisocyanate
26628228	Sodium azide.
26638197	Dichloropropane.
26952238	Dichloropropene.
27176870	Dodecylbenzenesulfonic acid.
27323417	Triethanolamine dodecylbenzene sulfonate.
27774136	Vanadyl sulfate.
28300745	Antimony potassium tartrate.
30525894	Paraformaldehyde.
32534955	2,4,5-TP esters.
33213659	beta - Endosulfan.
36478769	Uranyl nitrate.
37211055	Nickel chloride.
39196184	Thiofanox
	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O[(methylamino)carbonyl] oxime.
42504461	Isopropanolamine dodecylbenzenesulfonate.
52628258	Zinc ammonium chloride.
52652592	Lead stearate.
52740166	Calcium arsenite.
53467111	2,4-D Ester.
53469219	Aroclor 1242.
	Polychlorinated Biphenyls (PCBs)
55488874	Ferric ammonium oxalate.
56189094	Lead stearate.
61792072	2,4,5-T esters.

3. Section 302.6 is amended by revising paragraph (b)(1) and the parenthetical phrase at the end of the section to read as follows:

§ 302.6 Notification requirements.

* * * * *

(b) Releases of mixtures or solutions (including hazardous waste streams) of

(1) Hazardous substances, except for radionuclides, are subject to the following notification requirements:

(i) if the quantity of all of the hazardous constituent(s) of the mixture or solution is known, notification is

required where an RQ or more of any hazardous constituent is released; or

(ii) if the quantity of one or more of the hazardous constituent(s) of the mixture or solution is unknown, notification is required where the total amount of the mixture or solution released equals or exceeds the RQ for the hazardous constituent with the lowest RQ.

* * * * *

(Approved by the Office of Management and Budget under control numbers 2050–0046 and 2115–0137)

PART 116—LIST OF HAZARDOUS SUBSTANCES

1. The authority citation for Part 116 continues to read as follows:

Authority: 33 U.S.C. 1321 and 1361.

§ 116.4 [Amended]

2. Section 116.4 is amended by removing the entire entry for "Ammonium thiosulfate, CASRN 7783188," and by removing the term "Kelthane," CASRN 115322, and inserting in its place the term "Dicofol" in the list of hazardous substances in both Table 116.4A and Table 116.4B.

PART 117—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

1. The authority citation for Part 117 continues to read as follows:

Authority: 33 U.S.C. 1321 and 1361, and Executive Order 11735.

§ 117.3 [Amended]

2. Section 117.3 is amended by revising Table 117.3 to read as set forth below. Included in these amendments to Table 117.3 is the removal of the entry for "ammonium thiosulfate," CASRN 7783188, as well as the removal of the term "Kelthane," CASRN 115322, and the insertion in its place of the term "Dicofol." The note preceding Table 117.3 is republished without change.

* * * * *

Note—The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letter "X," "A," "B," "C,"and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively.

TABLE 117.3.—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES DESIGNATED PURSUANT TO SECTION 311 OF THE CLEAN WATER ACT

[**Note:** The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X," "A," "B," "C," and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively]

Material	Category	RQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454)
Acetic acid	D	5,000 (2,270)
Acetic anhydride	D	5,000 (2,270)
Acetone cyanohydrin	A	10 (4.54)
Acetyl bromide	D	5,000 (2,270)
Acetyl chloride	D	5,000 (2,270)
Acrolein	X	1 (0.454)
Acrylonitrile	B	100 (45.4)
Adipic acid	D	5,000 (2,270)
Aldrin	X	1 (0.454)
Allyl alcohol	B	100 (45.4)
Allyl chloride	C	1,000 (454)
Aluminum sulfate	D	5,000 (2,270)
Ammonia	B	100 (45.4)
Ammonium acetate	D	5,000 (2,270)
Ammonium benzoate	D	5,000 (2,270)
Ammonium bicarbonate.	D	5,000 (2,270)
Ammonium bichromate.	A	10 (4.54)
Ammonium bifluoride	B	100 (45.4)
Ammonium bisulfite	D	5,000 (2,270)
Ammonium carbamate.	D	5,000 (2,270)
Ammonium carbonate	D	5,000 (2,270)
Ammonium chloride	D	5,000 (2,270)
Ammonium chromate	A	10 (4.54)
Ammonium citrate dibasic.	D	5,000 (2,270)
Ammonium fluoborate	D	5,000 (2,270)
Ammonium fluoride	B	100 (45.4)
Ammonium hydroxide	C	1,000 (454)
Ammonium oxalate	D	5,000 (2,270)
Ammonium silicofluoride.	C	1,000 (454)
Ammonium sulfamate	D	5,000 (2,270)
Ammonium sulfide	B	100 (45.4)
Ammonium sulfite	D	5,000 (2,270)
Ammonium tartrate	D	5,000 (2,270)
Ammonium thiocyanate.	D	5,000 (2,270)
Amyl acetate	D	5,000 (2,270)
Aniline	D	5,000 (2,270)
Antimony pentachloride.	C	1,000 (454)
Antimony potassium tartrate.	B	100 (45.4)
Antimony tribromide	C	1,000 (454)
Antimony trichloride	C	1,000 (454)
Antimony trifluoride	C	1,000 (454)
Antimony trioxide	C	1,000 (454)
Arsenic disulfide	X	1 (0.454)
Arsenic pentoxide	X	1 (0.454)
Arsenic trichloride	X	1 (0.454)
Arsenic trioxide	X	1 (0.454)
Arsenic trisulfide	X	1 (0.454)
Barium cyanide	A	10 (4.54)
Benzene	A	10 (4.54)
Benzoic acid	D	5,000 (2,270)
Benzonitrile	D	5,000 (2,270)
Benzoyl chloride	C	1,000 (454)
Benzyl chloride	B	100 (45.4)
Beryllium chloride	X	1 (0.454)
Beryllium fluoride	X	1 (0.454)
Beryllium nitrate	X	1 (0.454)
Butyl acetate	D	5,000 (2,270)
Butylamine	C	1,000 (454)

TABLE 117.3.—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES DESIGNATED PURSUANT TO SECTION 311 OF THE CLEAN WATER ACT—Continued

[**Note:** The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X," "A," "B," "C," and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively]

Material	Category	RQ in pounds (kilograms)
n-Butyl phthalate	A	10 (4.54)
Butyric acid	D	5,000 (2,270)
Cadmium acetate	A	10 (4.54)
Cadmium bromide	A	10 (4.54)
Cadmium chloride	A	10 (4.54)
Calcium arsenate	X	1 (0.454)
Calcium arsenite	X	1 (0.454)
Calcium carbide	A	10 (4.54)
Calcium chromate	A	10 (4.54)
Calcium cyanide	A	10 (4.54)
Calcium dodecylbenzene-sulfonate.	C	1,000 (454)
Calcium hypochlorite	A	10 (4.54)
Captan	A	10 (4.54)
Carbaryl	B	100 (45.4)
Carbofuran	A	10 (4.54)
Carbon disulfide	B	100 (45.4)
Carbon tetrachloride	A	10 (4.54)
Chlordane	X	1 (0.454)
Chlorine	A	10 (4.54)
Chlorobenzene	B	100 (45.4)
Chloroform	A	10 (4.54)
Chlorosulfonic acid	C	1,000 (454)
Chlorpyrifos	X	1 (0.454)
Chromic acetate	C	1,000 (454)
Chromic acid	A	10 (4.54)
Chromic sulfate	C	1,000 (454)
Chromous chloride	C	1,000 (454)
Cobaltous bromide	C	1,000 (454)
Cobaltous formate	C	1,000 (454)
Cobaltous sulfamate	C	1,000 (454)
Coumaphos	A	10 (4.54)
Cresol	C	1,000 (454)
Crotonaldehyde	B	100 (45.4)
Cupric acetate	B	100 (45.4)
Cupric acetoarsenite	X	1 (0.454)
Cupric chloride	A	10 (4.54)
Cupric nitrate	B	100 (45.4)
Cupric oxalate	B	100 (45.4)
Cupric sulfate	A	10 (4.54)
Cupric sulfate, ammoniated.	B	100 (45.4)
Cupric tartrate	B	100 (45.4)
Cyanogen chloride	A	10 (4.54)
Cyclohexane	C	1,000 (454)
2,4-D Acid	B	100 (45.4)
2,4-D Esters	B	100 (45.4)
DDT	X	1 (0.454)
Diazinon	X	1 (0.454)
Dicamba	C	1,000 (454)
Dichlobenil	B	100 (45.4)
Dichlone	X	1 (0.454)
Dichlorobenzene	B	100 (45.4)
Dichloropropane	C	1,000 (454)
Dichloropropene	B	100 (45.4)
Dichloropropene-Dichloropropane (mixture).	B	100 (45.4)
2,2-Dichloropropionic acid.	D	5,000 (2,270)
Dichlorvos	A	10 (4.54)
Dicofol	A	10 (4.54)
Dieldrin	X	1 (0.454)
Diethylamine	B	100 (45.4)
Dimethylamine	C	1,000 (454)

TABLE 117.3.—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES DESIGNATED PURSUANT TO SECTION 311 OF THE CLEAN WATER ACT—Continued

[**Note:** The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X," "A," "B," "C," and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively]

Material	Category	RQ in pounds (kilograms)
Dinitrobenzene (mixed).	B	100 (45.4)
Dinitrophenol	A	10 (45.4)
Dinitrotoluene	A	10 (4.54)
Diquat	C	1,000 (454)
Disulfoton	X	1 (0.454)
Diuron	B	100 (45.4)
Dodecylbenzenesulfonic acid.	C	1,000 (454)
Endosulfan	X	1 (0.454)
Endrin	X	1 (0.454)
Epichlorohydrin	B	100 (45.4)
Ethion	A	10 (4.54)
Ethylbenzene	C	1,000 (454)
Ethylenediamine	D	5,000 (2,270)
Ethylenediaminetetraacetic acid (EDTA).	D	5,000 (2,270)
Ethylene dibromide	X	1 (0.454)
Ethylene dichloride	B	100 (45.4)
Ferric ammonium citrate.	C	1,000 (454)
Ferric ammonium oxalate.	C	1,000 (454)
Ferric chloride	C	1,000 (454)
Ferric fluoride	B	100 (45.4)
Ferric nitrate	C	1,000 (454)
Ferric sulfate	C	1,000 (454)
Ferrous ammonium sulfate.	C	1,000 (454)
Ferrous chloride	B	100 (45.4)
Ferrous sulfate	C	1,000 (454)
Formaldehyde	B	100 (45.4)
Formic acid	D	5,000 (2,270)
Fumaric acid	D	5,000 (2,270)
Furfural	D	5,000 (2,270)
Guthion	X	1 (0.454)
Heptachlor	X	1 (0.454)
Hexachlorocyclopentadiene.	A	10 (4.54)
Hydrochloric acid	D	5,000 (2,270)
Hydrofluoric acid	B	100 (45.4)
Hydrogen cyanide	A	10 (4.54)
Hydrogen sulfide	B	100 (45.4)
Isoprene	B	100 (45.4)
Isopropanolamine dodecylbenzenesulfonate.	C	1,000 (454)
Kepone	X	1 (0.454)
Lead acetate	D	5,000 (2,270)
Lead arsenate	X	1 (0.454)
Lead chloride	B	100 (45.4)
Lead fluoborate	B	100 (45.4)
Lead fluoride	B	100 (45.4)
Lead iodide	B	100 (45.4)
Lead nitrate	B	100 (45.4)
Lead stearate	D	5,000 (2,270)
Lead sulfate	B	100 (45.4)
Lead sulfide	D	5,000 (2,270)
Lead thiocyanate	B	100 (45.4)
Lindane	X	1 (0.454)
Lithium chromate	A	10 (4.54)
Malathion	B	100 (45.4)
Maleic acid	D	5,000 (2,270)
Maleic anhydride	D	5,000 (2,270)
Mercaptodimethur	A	10 (4.54)
Mercuric cyanide	X	1 (0.454)
Mercuric nitrate	A	10 (4.54)
Mercuric sulfate	A	10 (4.54)
Mercuric thiocyanate	A	10 (4.54)
Mercurous nitrate	A	10 (4.54)
Methoxychlor	X	1 (0.454)
Methyl mercaptan	B	100 (45.4)
Methyl methacrylate	C	1,000 (454)
Methyl parathion	B	100 (45.4)
Mevinphos	A	10 (4.54)
Mexacarbate	C	1,000 (454)
Monoethylamine	B	100 (45.4)
Monomethylamine	B	100 (45.4)
Naled	A	10 (4.54)
Naphthalene	B	100 (45.4)
Naphthenic acid	B	100 (45.4)
Nickel ammonium sulfate.	B	100 (45.4)
Nickel chloride	B	100 (45.4)
Nickel hydroxide	A	10 (4.54)
Nickel nitrate	B	100 (45.4)
Nickel sulfate	B	100 (45.4)
Nitric acid	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrogen dioxide	A	10 (4.54)
Nitrophenol (mixed)	B	100 (45.4)
Nitrotoluene	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)
Parathion	A	10 (4.54)
Pentachlorophenol	A	10 (4.54)
Phenol	C	1,000 (454)
Phosgene	A	10 (4.54)
Phosphoric acid	D	5,000 (2,270)
Phosphorus	X	1 (0.454)
Phosphorus oxychloride.	C	1,000 (454)
Phosphorus pentasulfide.	B	100 (45.4)
Phosphorus trichloride.	C	1,000 (454)
Polychlorinated biphenyls.	X	1 (0.454)
Potassium arsenate	X	1 (0.454)
Potassium arsenite	X	1 (0.454)
Potassium bichromate.	A	10 (4.54)
Potassium chromate	A	10 (4.54)
Potassium cyanide	A	10 (4.54)
Potassium hydroxide	C	1,000 (454)
Potassium permanganate.	B	100 (45.4)
Propargite	A	10 (4.54)
Propionic acid	D	5,000 (2,270)
Propionic anhydride	D	5,000 (2,270)
Propylene oxide	B	100 (45.4)
Pyrethrins	X	1 (0.454)
Quinoline	D	5,000 (2,270)
Resorcinol	D	5,000 (2,270)
Selenium oxide	A	10 (4.54)
Silver nitrate	X	1 (0.454)
Sodium	A	10 (4.54)
Sodium arsenate	X	1 (0.454)
Sodium arsenite	X	1 (0.454)
Sodium bichromate	A	10 (4.54)
Sodium bifluoride	B	100 (45.4)
Sodium bisulfite	D	5,000 (2,270)
Sodium chromate	A	10 (4.54)
Sodium cyanide	A	10 (4.54)
Sodium dodecylbenzenesulfonate.	C	1,000 (454)
Sodium fluoride	C	1,000 (454)
Sodium hydrosulfide	D	5,000 (2,270)
Sodium hydroxide	C	1,000 (454)
Sodium hypochlorite	B	100 (45.4)
Sodium methylate	C	1,000 (454)
Sodium nitrite	B	100 (45.4)
Sodium phosphate, dibasic.	D	5,000 (2,270)
Sodium phosphate, tribasic.	D	5,000 (2,270)
Sodium selenite	B	100 (45.4)
Strontium chromate	A	10 (4.54)
Strychnine	A	10 (4.54)
Styrene	C	1,000 (454)
Sulfuric acid	C	1,000 (454)
Sulfur monochloride	C	1,000 (454)
2,4,5-T acid	C	1,000 (454)
2,4,5-T amines	D	5,000 (2,270)
2,4,5-T esters	C	1,000 (454)
2,4,5-T salts	C	1,000 (454)
TDE	X	1 (0.454)
2,4,5-TP acid	B	100 (45.4)
2,4,5-TP acid esters	B	100 (45.4)
Tetraethyl lead	A	10 (4.54)
Tetraethyl pyrophosphate.	A	10 (4.54)
Thallium sulfate	B	100 (45.4)
Toluene	C	1,000 (454)
Toxaphene	X	1 (0.454)
Trichlorfon	B	100 (45.4)
Trichloroethylene	B	100 (45.4)
Trichlorophenol	A	10 (4.54)
Triethanolamine dodecylbenzenesulfonate.	C	1,000 (454)
Triethylamine	D	5,000 (2,270)
Trimethylamine	B	100 (45.4)
Uranyl acetate	B	100 (45.4)
Uranyl nitrate	B	100 (45.4)
Vanadium pentoxide	C	1,000 (454)
Vanadyl sulfate	C	1,000 (454)
Vinyl acetate	D	5,000 (2,270)
Vinylidene chloride	B	100 (45.4)
Xylene (mixed)	C	1,000 (454)
Xylenol	C	1,000 (454)
Zinc acetate	C	1,000 (454)
Zinc ammonium chloride.	C	1,000 (454)
Zinc borate	C	1,000 (454)
Zinc bromide	C	1,000 (454)
Zinc carbonate	C	1,000 (454)
Zinc chloride	C	1,000 (454)
Zinc cyanide	A	10 (4.54)
Zinc fluoride	C	1,000 (454)
Zinc formate	C	1,000 (454)
Zinc hydrosulfite	C	1,000 (454)
Zinc nitrate	C	1,000 (454)
Zinc phenolsulfonate	D	5,000 (2,270)
Zinc phosphide	B	100 (45.4)
Zinc silicofluoride	D	5,000 (2,270)
Zinc sulfate	C	1,000 (454)
Zirconium nitrate	D	5,000 (2,270)
Zirconium potassium fluoride.	C	1,000 (454)

TABLE 117.3.—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES DESIGNATED PURSUANT TO SECTION 311 OF THE CLEAN WATER ACT—Continued

[**Note:** The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X," "A," "B," "C," and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively]

Material	Category	RQ in pounds (kilograms)
Zirconium sulfate	D	5,000 (2,270)
Zirconium tetrachloride	D	5,000 (2,270)

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